

UNIVERSITY OF CAPE TOWN

FEAR OF SUCCESS REVISITED

**Research submitted in fulfilment of the requirements of the
Master's of Social Science degree in Industrial and
Organizational Psychology**

By

RONELLE DE VILLIERS

Supervisor

DR A M KELLERMAN

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LIST OF ABBREVIATIONS

AAV	:	Autonomous Achievement Values
ATW	:	Attitudes Towards Women
FOS	:	Fear of Success
NA	:	Negative Affect
nAch	:	Need for Achievement
PA	:	Positive Affect
SAV	:	Social Achievement Values
SE	:	Self-Efficacy
TAT	:	Thematic Apperceptive Test

ABSTRACT

The unresolved question of whether Fear of Success is a motive or a measure of gender-role stereotypes is at the centre of the confusion about this construct. The purpose of the present study was to re-explore the nature of Fear of Success through the relationship of this construct to other theoretically related variables. The list of variables included Self-Efficacy, Autonomous and Social Achievement Values, Attitudes Towards Women, Positive and Negative Affect and Age. Cronbach and Meehl's (cited in Tresemer, 1976a) statement that the nomological net of propositions in which a construct is embedded must show predicted relationships with that construct, fostered the expectation that at least some of these variables would predict Fear of Success. It was anticipated that establishing a relationship with either the sociological or the personality constructs would clarify the nature of Fear of Success.

The sample consisted of 240 white, English-speaking Capetonian women. The sample was restricted to women from the same cultural group so as to avoid the introduction of confounding variables, and to facilitate comparison of the results with the bulk of the research, most of which has been conducted in America. Furthermore, subjects were drawn from the working population rather than students, as many researchers in this field have done, so that results would be generalizable to the workplace. Each subject was administered a questionnaire containing the following scales: Good and Good's (1973) Fear of Success Scale, The Positive and Negative Affect Schedule which was developed by Watson, Clark and Tellegen (1988), Tipton, Everett and Worthington's (1984) Generalized Self-Efficacy Scale, Spence and Helmreich's (1972) Attitudes Towards Women Scale and the Autonomous and Social Achievement Values Scale which was compiled by Strümpfer (1975).

An exploratory approach was used to analyse the data, because this technique is guided by the nature of the data which fosters new and flexible ways of exploration, and

may lead to unexpected outcomes (Tukey, 1977). A number of different analytical techniques were employed in the exploration of Fear of Success. It was found the Fear of Success correlated with personality variables such as Autonomous Achievement Values, Negative Affect, Self-Efficacy and Positive Affect. Specifically, Fear of Success was predicted by Negative Affect and Self-Efficacy. This finding established that Fear of Success was embedded in personality, although it could not be claimed on the basis of these results that Fear of Success is a motive. The natural grouping of variables was explored, using cluster analysis. This exercise revealed that the predisposition to develop Fear of Success may be explained in terms of psychological health or well-being. These findings indicated that Fear of Success may be a motive or personality trait. Recommendations for future research were made.

CHAPTER 1

INTRODUCTION TO THE FEAR OF SUCCESS CONSTRUCT

*You can't tell how deep a puddle
is until you step in it*

(Miller's Law)

The Fear of Success (FOS) construct was developed by Horner (1968) in an attempt to explain the unresolved gender differences detected in research on achievement motivation (Condry & Dyer, 1976; Horner, 1968, 1969, 1972; Monahan, Khun & Shaver, 1974). Horner (1969, p.38), defined the fear of success as, "the fear that success in competitive achievement situations would lead to negative consequences, such as unpopularity and loss of femininity". When this fear conflicts with the desire to be successful, the motive to avoid success is aroused, and the outcome is an inhibition of achievement motivation.

Setting the Scene

Horner (1969) attributed McClelland, Atkinson, Clark and Lowell with publishing the first major work on the achievement motive. Through the use of the Thematic Apperceptive Test (TAT), McClelland et al. (1953) isolated the psychological characteristic of a "need to achieve", which has been described as an internalized standard of excellence, motivating the individual to do well in any achievement-oriented situation involving intelligence and leadership ability. Horner made the observation that subsequent research has concentrated on achievement motivation among males. The few studies which included women yielded

contradictory or confusing results. Among males, achievement imagery increased under arousal conditions and scores of achievement motivation were related to risk taking, levels of aspiration, performance and persistence in achievement-oriented activity. These results could not be replicated using female subjects, "so that women were eventually left out all together" (Horner, 1969, p.36).

Horner (1969) stated that her "first clue" as to where to begin her research came from the consistent finding that women suffered higher test anxiety than men. With regard to such findings, Horner noted Maccoby's suggestion that the "girl" who is motivated to achieve defied conventions of what girls "should" do. Thus, the intellectual woman paid a price in anxiety. Mead's observation that intellectual striving could be viewed as "competitively aggressive behaviour" supported this understanding of female achievement anxiety. Horner also cited Freud's opinion that the whole essence of femininity lay in repressing aggressiveness, and hence intellectuality. Thus, the FOS construct was conceived in terms of what society ruled as gender-appropriate behaviour.

A Description of Horner's Original Findings

Horner conducted her original research at the University of Michigan in 1968. She administered the standard TAT achievement motivation measures to a sample of 90 female and 88 male undergraduates. In addition, an independent instrument was employed to measure the motive to avoid success: female students were asked to respond to the cue, "After first-term finals, Anne finds herself at the top of her medical school class...". For male subjects the stimulus figure was replaced

by "John". The TAT protocols were scored for the "motive to avoid success" if any negative imagery was expressed which reflected concern about success.

Horner (1968, 1969) reported that 65 per cent of the female subjects responded with FOS imagery. In contrast, less than 10 per cent of students within the male sample showed evidence of the motive to avoid success. Three themes were identified as characteristic of the FOS imagery produced by females. Social rejection was the most common theme. The females within this group expressed anxiety about becoming unpopular, unmarriageable and lonely as a result of success; doubts about femininity or normality in terms of the definition of womanhood were also a theme, and bizarre responses were recorded. Thus, Horner (1969, p.38) concluded that the motive to avoid success was "far more characteristic of women than of men".

Horner (1968, 1969) also tested the hypothesis that anxiety over success would be greater in competitive situations. She reasoned that the aggressive masculine aspects of achievement striving would be more pronounced in competitive situations. Horner reported that female subjects tended to perform better when working alone, in the non-competitive condition, than in a competitive situation where they worked against both males and females. The opposite was true for the male subjects. As predicted, subjects who expressed negative imagery in response to the cue performed best while working by themselves. Of the females who feared success, 77 per cent produced better results working alone than in competition. In comparison, 93 per cent of the females who did not react with FOS performed

better in the competitive situation.

In all experimental conditions - working alone, or in competition against males or females - high FOS women consistently lagged behind their counterparts, despite the fact that these females tended to have high intellectual ability and histories of academic success. Horner (1969) commented that women who are not seeking success should not, after all, be threatened by it.

Thus, Horner confirmed her hypotheses that the motive to avoid success was prevalent among females, that the motive was more characteristic of women who were capable of success and who were career oriented than of women not so motivated, and that Fear of Success interfered with motivation and performance under competitive conditions.

Locating Fear of Success in a Theoretical Framework

FOS was conceptualized within the framework of the Valence-Expectancy theory of motivation, as formulated by McClelland, Atkinson, Clark and Lowell (cited in Horner, 1972). This theory of motivation focuses on how expectations of outcomes and the value of such outcomes to the individual influence motivation. Horner's explanation of how FOS is instilled and aroused in women closely paralleled Atkinson's description of how the achievement motive is manifested. In accordance with Atkinson's definition of a motive, Horner defined the motive to avoid success as a "latent, stable personality disposition, acquired early in life in conjunction with standards of [gender]-role identity" (Horner, 1969, p.38; 1972, p.159). Horner

proposed that the degree to which this motive interferes with performance depends on the strength of the motive to avoid success, which is determined by the probability of success and the expectation of negative consequences (Horner, 1972; Leder, 1987; Popp & Muhs, 1982; Zuckerman & Wheeler, 1976).

Horner's (1968, 1969, 1972) description of the problems of achievement motivation in women was more complex than simply a matter of whether or not women internalized a traditional view of the female role. She described a complex relationship between the motive to avoid success and certain situational factors which would determine the nature of the expectancy an individual held about the consequences of actions, and the value of these consequences in that situation. These factors would determine whether or not internalized dispositions would be aroused. Accordingly, Horner's research showed that FOS was more characteristic of high ability females, and that anxiety over success was greater in competitive situations than in noncompetitive situations.

The Implications of Horner's Findings

Horner (1972) claimed that despite an ostensibly equitable culture and education system, social, and even more importantly, internal psychological barriers rooted in society's image of woman, limited the opportunities for career success to men. The FOS construct was identified as an "internal psychological representative" of the societal stereotype which viewed competence, independence, competition, and intellectual achievement as characteristics inconsistent with femininity - even though positively related to masculinity and mental health. Thus, for women the

desire to achieve is frustrated by what Horner called the "motive to avoid success". According to Horner the discovery of this construct meant the realization of the extent to which this image of woman has been internalized, acquiring the capacity to exert psychological pressure on people's behaviour.

Status of the Fear of Success Construct

FOS appears to have become the most widely accepted psychological explanation for women's underrepresentation in prestigious occupations, and apparent lack of competitive striving in general (Olsen & Willemson, 1978).

There is, however, no conclusive evidence for the existence of FOS as a personality characteristic or motive in either men or women. The contention has arisen from the problems encountered in replicating Horner's findings (Forbes & King, 1988; Griffore, 1977; Hoffman, 1974; Levine & Crumrine, 1975; Morgan & Mausner, 1973; Robbins & Robbins, 1973).

Instead, research has suggested that the story-completion technique used in Horner's (1968, 1972) research measured gender-role attitudes, i.e. cultural expectations about achievement, that vary in response to situational cues rather than according to the personality of the story-writer. What the research appears to have revealed, is that women who attempted to compete in certain types of occupations or academic positions could expect to encounter environmental obstacles - not that women were inhibited from achieving because of a particular personality characteristic.

Tresemmer's (1974) analytical review has been cited as a negation of Horner's theory, but Tresemmer (1976) subsequently claimed that his review was "overinterpreted". According to Tresemmer, his review was "intended as a caution against over-application of women's Fear of Success as a personality explanation in the strong sociological analysis of a revitalized women's liberation movement" (p.212). In fact, Tresemmer stated that this concept could be useful in a science of human behaviour. He ascribed the "bad name" earned by the FOS construct to "replication of irrelevant aspects of the problem and overconcern in the popular media with divisive, guilt-inducing, 'scientific' evidence" (p.213).

The FOS construct continues to attract interest. A "popular advice" book entitled Overcoming Fear of Success was published in 1980 and was supplemented by a Psychology Today tape on the subject in 1985. In 1986, the women's section of the clinical division of the American Psychological Association sponsored a panel discussion on the question of women's Fear of Success (Friedman, cited in Mednick, 1989). Research by Karush (1987) and Kruger (cited in Bailis, 1986) has been cited in support of the trait theory of FOS. There is also evidence that psychoanalysts persist in using FOS as an explanation for their clients' problems despite the confusion surrounding the scientific status of the problem (Miller, 1980; Moulton, cited in Mednick, 1989; Schecter, 1979; Wolfe, 1977). Mednick has attributed the "extreme popularity" of the motive to avoid success to its intuitive appeal and easy connection to personal experience. Hence, the adoption of this psychological construct as a "conceptual bandwagon".

Fear of Success as a Conceptual Bandwagon

The explanation offered by Mednick (1989, p.1121) for the popularity of FOS was that the "simplicity of such ideas is appealing; gender dichotomy confirms stereotypes and provides strong intuitive resonance....". People tend to underestimate the role of situational factors in determining behaviour in favour of ascribing their actions to personal or dispositional attributes. Mednick argued that the inclination to explain behaviour in terms of personal experience rather than in terms of the facts was complementary to, and reinforced the attribution of behaviour to personal factors (Brigham, cited in Mednick). Also, Decision Theory has contended that people do not behave rationally, but construct simplified models of the world for directing their behaviour. Furthermore, these tendencies are entrenched by cultural belief in gender differences. According to Deaux and Major and Greeno and Maccoby (cited in Mednick, 1989), there is a strong belief in gender differences, especially those congruent with stereotypes.

Traditionally, outstanding academic, professional and career achievement have been considered a male domain. Among the many factors thought to contribute to the shaping and maintenance of such conservative social attitudes, Leder (1984, 1987) highlighted the role played by the print media. The view that the media contributes to shaping ideas and attitudes, as well as reflecting and reinforcing popular beliefs was shared by Eysenck and Nias, Mitchell, Roberts and Tyler and Vail (cited in Leder, 1984). Leder proposed that the negative depiction of successful women, likely to be perceived as role models by young girls, may

contribute to an explanation of how conservative attitudes towards female success are perpetuated. She concluded that, "the notion of traditional [gender] linked behaviour [would] be only too familiar to the next generation...it continues to be reinforced and perpetuated by the media" (p.228).

Although the scientific merit of the FOS construct cannot be ignored, Mednick's (1989) primary concern was with the "bandwagon effect": "Scholarship is affected and enquiry stifled, if only because the development of alternative models is not as attractive as jumping on the bandwagon. Public views are affected, and because most of these ideas are offered as all-encompassing, simplistic solutions to the understanding of a social problem, they convey one-dimensional and even incorrect notions about what the problem is and how it can be solved" (p.1119).

In the case of FOS the manifestation of this effect is evident in the widely accepted ascription of female underachievement to innate gender differences. According to Tresemer (1976), the FOS construct became an axiom of gender-role differences. Eisenstein, among others, has decried such a dichotomous way of thinking and exaggeration of gender differences as a "false universalism" that leads to the misperception of women as an homogenous mass (Eisenstein, Mednick & Lott, cited in Mednick, 1989). The emphasis on gender differences focuses the explanation for female underachievement intrapsychically. Such an explanation places the burden of change entirely on the individual and discourages scientific enquiry into the cultural, structural or contemporaneous situational factors that may affect behaviour (Mednick, 1989). Hence the call for a more relativistic approach

which would take into account situational and social factors that may contribute to creating gender differences. This approach would not ignore gender differences, but the focus would not be on gender alone as an explanatory concept. In other words, the analytic focus of this approach would be directed towards social structure rather than towards personal attributes.

Such an approach has, in fact, been advocated by a number of researchers. The conclusion that the FOS measure may tap cultural stereotypes, rather than a motive to avoid success, followed from attempts to resolve the inconsistencies within the field of research. Among the most convincing arguments for a situational interpretation of FOS research are those presented by Condry and Dyer (1976) and Zuckerman and Wheeler (1975).

The Approach of the Present Study

The aim of the current study was to re-explore the nature of FOS, focusing on how this construct relates to women. Most FOS-related research has concentrated on measuring gender differences in FOS.

The sample used in the current study was composed of white women only. This may be seen as a failing of the study, where FOS may be relevant in explaining underachievement among South African women of other race groups too. However, the record of cross-cultural research is sketchy, which means that comparative research is not available. In fact, FOS has not been widely researched in South Africa. Most of the research has been conducted in the United States. The

few studies which have been conducted in this country have focused on white South Africans (Erwee, 1981; Erwee & Boshoff, 1982; Kellerman, 1983; Tenty, 1984; Thompson, 1990; Van der Westhuizen, 1986). Thus, the inclusion of other race groups in the sample could have introduced confounding cultural variables.

The research concerning FOS is characterized by confusion and contradictory findings. South African research being a case in point. None of the studies enumerated in the preceding paragraph reported significant results. The construct has been repeatedly measured, but the nature of the construct is uncertain - whether FOS is a motive or a situational variable remains a point of contention. The current study sought to re-explore the nature of FOS using a similar approach to that adopted by Tresemer in his re-analysis of the FOS construct. Tresemer (1976b) employed a different method from previous research which focused on measuring the variable. He measured the construct's relationship to a number of personality variables which bear important theoretical relationship to feelings about success and failure. However, no significant correlations were reported. Accordingly, the present study was designed to explore the meaning of FOS in terms of the construct's relationship to a number of theoretically related personality and situational variables. The purpose of the study was to determine whether these variables would predict the occurrence of FOS - where a predictive relationship may suggest a descriptive relation between that variable and FOS. In other words, an empirically determined link between FOS and these variables could contribute to a greater understanding of the concept, and also suggest further avenues for study.

Among the variables investigated were Self-Efficacy, Negative Affect, Positive Affect, Autonomous Achievement Values, Social Achievement Values, Attitudes Towards Women and age. With the exception of the age variable, none of these variables have been researched apropos FOS, although the conceptual links between these variables and FOS are convincing. Consequently, the possibility of concept redundancy, or shared meaning between these constructs and FOS was also investigated. The relationships between the variables will be explored in detail, and relevant research concerning these variables reviewed in the following chapters.

Before the relationship between these variables and FOS could be explored, however, an examination of the research on FOS was necessary to establish a thorough understanding of the construct. This is the topic of the next chapter.

CHAPTER 2

OVERVIEW OF THE FEAR OF SUCCESS

Tresemmer (1974, 1976a, 1976b) has done extensive work on reviewing FOS-related research. Tresemmer (1974) noted that the absence of exact replications of Horner's experimental design has made it difficult to assess the hypothesized FOS effect in terms of the original experiment. He concluded that the performance record of FOS is mixed. Banks (1979) concurred that although supportive results have been generated, these are not numerous or consistent. In particular, research has not confirmed the "basic assumptions" on which Horner based her description of the FOS construct (Cook & Chandler, 1984; Patty, 1974). Horner (1969, p.38) described the motive to avoid success as:

- * a latent, stable personality disposition acquired early in life as part of gender role socialization.
- * prevalent among women.
- * strongly aroused in able women who are motivated to achieve.
- * and as more strongly aroused in competitive achievement situations than in situations where achievement is directed against an impersonal standard.

Inconsistent findings with regard to the characteristics of FOS gave rise to the debate of whether FOS is a motive or a measure of gender-role stereotypes. This debate still rages at the centre of the confusion surrounding FOS. Ward (1978) observed, however, that the establishment of empirically determined trends meant

that the concept and the measure could not be disregarded despite the difficulties which have arisen in their use.

Reassessment of Horner's Original Experiment

Levine and Crumrine's (1975) effort to explain the discrepancies which arose in their attempt to replicate Horner's study revealed a number of methodological flaws in Horner's original experiment. The reliability and validity of the original measure have been questioned (Condry & Dyer, 1976; Monahan, Kuhn & Shaver, 1974; Zuckerman & Allison, 1976).

Evidence for Horner's FOS effect was based on her finding that significantly more females (65 per cent) than males (10 per cent) wrote stories high in FOS imagery. The possibility exists, however, that these results were an artifact of bias. Levine and Crumrine (1975) cautioned that the scoring scheme was used by raters who knew the gender of the respondents from the story stem. The evidence of scorer reliability is insufficient to dismiss the problem, especially if raters were aware of the hypothesis.

What is more, Williams (1975) has called attention to the fact that there was no standardized means of scoring the protocols for FOS. The probability of experimenter bias affecting the results is high in a situation where each experimenter had to subjectively determine what constituted FOS. To test this, Tresemer (cited in Williams, 1975) scored stories generated in his own study by several different methods, varying the scoring elements which could be

construed as evidence of FOS. The FOS scores varied considerably across the scoring methods employed. Zuckerman and Allison (1976, p. 422) stated that absence of a standardized scoring procedure to verify TAT responses, "leads to a low reliability which, in turn, implies a lack of predictive validity". Consequently, Condry and Dyer (1976) stated that it is not clear whether differences among studies arose due to treatment effects or from the unreliability of the measure.

Horner's (1968) conceptualization of FOS was questioned by Tresemer's (1976a) re-analysis of her original data. Tresemer's reinterpretation of the data was based on the outcome of an analysis of variance for the performance scores, rather than the dichotomization of scores applied by Horner. Although Tresemer reconfirmed the FOS effect, he found that it was strongly mediated by the subject's scores on a thematic measure of need for achievement (nAch). Subjects evidencing a low nAch appeared to be adversely affected by the presence of FOS when in a group whereas those with a high nAch did not perform significantly differently whether they showed signs of FOS or not. Tresemer's interpretation was that negative thoughts can interfere in performance if an individual is not really motivated to achieve in the first place. This conclusion is in sharp contrast to Horner's hypothesis that it is highly capable, achievement-oriented women who suffer from FOS.

The design of Horner's (1968) original experiment has also been criticised. For example, Levine and Crumrine (1975) reported that Horner made a post-hoc

decision to call the "experimental" condition of her study a "mixed-sex competitive" condition in a subsequent phase of the analysis. Horner's decision introduced the "possibility that accidental variations in the data were interpreted as indicating meaningful differences related to experimental variables" (Levine & Crumrine, p. 970). This possibility was confirmed by Tresemer's (1976c) re-analysis of Horner's original experiment. Tresemer employed different experimental designs which yielded different interpretations of the results, particularly with respect to the baseline group used for comparison of performance.

Fleming (1977) also queried Horner's assertion that performance decrement in competitive situations could be attributed to the motive to avoid success. Fleming noted that there is consensus that a variable can be considered motivational only if its effect on behaviour cannot be attributed to other processes such as learning, prior experience or innate ability. Horner, however, did not establish a baseline control for an effective test of her theory. According to Fleming (1977), Horner did not separate ability and motivation effects within the experimental conditions compared. Without a demonstration that the baseline performance is uninfluenced by artifact, it is difficult to identify the motivational effect, since the measure then only captures a relative or functional performance decrement.

Generalizability of Fear of Success

Horner's (1968) original research employed a sample of college students. Most subsequent FOS-related research has also utilised student samples. The question

has been raised whether these findings are generalizable to women who are achieving in a competitive work environment (Ishiyama & Chabassol, 1984; Wood & Greenfield, 1976, 1979).

Research by Breedlove and Circirelli (1974) showed that FOS levels within female student samples tended to increase as subjects approached graduation, and the prospect of competing in the job market as opposed to the learning situation. Given such observations it would seem likely that FOS is relevant to working women.

However, research by Wood (cited in Wood & Greenfield, 1976, 1979) did not support the assumption that Horner's (1968) findings would be generalisable to working women. Wood conducted interviews with hundreds of working women which revealed that these women manifested high motivation to succeed. This conclusion was corroborated by female managers' male peers, subordinates and superiors. While a few of the older female subjects were concerned with the effect of their success on their husband's self-esteem and the consequences for their marriages, most of the younger women seemed to be able to integrate their marriages and careers. This outcome was reinforced by research conducted by Wood and Greenfield (1976) within an organization. Wood and Greenfield reported that FOS themes written in response to verbal cues about successful women were evidenced to some degree by both male and female employees, but no significant gender difference in the generation of FOS imagery was recorded. An analysis of background data revealed more similarities between the subjects than differences. Another field study conducted by Wood and Greenfield (1979),

involving successful, high achieving women competing with men in a male-dominated field, also failed to generate support for Horner's hypothesis that FOS is related to gender and performance.

Wood and Greenfield (1976, 1979) claimed that their results were predictable in view of the changes that had taken place in women's social role since Horner conducted her original study. Thus, Wood and Greenfield concluded that their study reflected the growing realization of the obsolescence of gender-typing roles. This explanation supports a situational rather than a motivational interpretation of FOS.

Factors Influencing the Measurement of Fear of Success

Notwithstanding the criticisms of Horner's research, a number of factors have been identified which may contribute to the confusion surrounding the measurement of FOS. The inconsistencies which characterize FOS research have resulted in the construct being described as a "now-you-see-it-now-you-don't phenomenon" (Alper, 1974).

Type of Measuring Instrument

The projective measure of FOS has been criticised for yielding unreliable gender differences in FOS imagery across studies (Condry & Dyer, 1976; Ho & Zemaitis, 1981; Tresemer, 1976b; Zuckerman & Wheeler, 1975).

A number of studies have documented the low test-re-test reliability of the

projective technique (Griffore, 1977; Moore & Paludi cited in Paludi, 1984). Griffore (1977) questioned whether the wide gender differences in FOS observed across studies could be partly due to differences in scoring procedures. Horner's failure to provide a standard scoring system for the projective method of measuring FOS has been noted. Paludi (1984), however, reported high inter-rater reliability of between 80 per cent and 96 per cent for this technique, despite additional problems such as the tendency of FOS scores to reflect scorers' gender and expectancies (Robbins & Robbins, 1973). Thus the difficulty in awarding reported discrepancies to treatment effects or method variance. Ward (1978) cited a number of studies which have found low or nonexistent correspondence over cues, which argues for the latter explanation.

The results of experiments which have tested the validity of the projective measure of FOS have been inconsistent (Cohen; Makosky; Paludi; Pappo; Schulenberg; Zuckerman & Allison cited in Paludi, 1984). Tresemer and Shaver (cited in Williams, 1975; Ward, 1978) are among the researchers who have commented on Horner's unconventional development of the projective measure. The conventional method of establishing a motive is to use the imagery produced by an aroused group as the basis for a scoring system, which is then applied to themes elicited in a neutral group. Horner omitted to compare the themes of aroused and neutral groups, but proceeded to score protocols motive present if she considered the stories to exhibit evidence of Fear of Success. Nevertheless, Ward (1978) declared that Horner's criteria appeared valid as FOS imagery emerged as a consistent predictor of female performance decrement within that situation.

According to Spence (1974), Horner's original cue elicited, "a constellation of internal and external factors associated with gender-role expectations" (p.432) - despite the fact that Horner presented her subjects with same-gender stimulus figures. Atkinson (cited in Ward, 1978) stated that presentation of a same-gender stimulus cue is most appropriate in facilitating the process of identification and projection on which motivational assessment is based. Thus the practice of matching the gender of the cue figure to the gender of the respondent in motivational research. Ward (1978) argued that measurement of extrinsic factors, e.g. stereotypes was "more probable" when subjects were made to respond to a cross-gender stimulus person. Klinger (cited in Spence, 1974), however, found that the standard, ambiguous cue used to measure achievement motivation was influenced by more than underlying personality dimensions, and in view of the fact that Horner's cue content was comparatively highly structured, it was likely to elicit environmental factors to an even greater degree than the conventional cue. Evidence of the influence of cue content on story content can be found in an investigation by Grainger, Kostick and Staley (cited in Spence, 1974).

Tresemmer (cited in Gravenkemper & Paludi, 1983) suggested that another way of testing whether Horner's projective technique tapped gender-role stereotypes was to examine the effects of an ambiguous cue on the incidence of FOS imagery. Compared to the traditional ambiguous projective test of nAch, which allows subjects to define success for themselves, Horner's cue was criticized as too

limiting and specific, forcing subjects to react to a "narrow, focused, concrete situation" (p.899). The result of administering Tresemer's cue ("After much work, Joe [Judy] has finally gotten what he [she] wanted") was a significant decline in the proportion of FOS imagery compared to the percentage of women reported to fear success by Horner. Tresemer's cue was, however, not free from implications of causal attributions of ability and effort.

Consequently, Gravenkemper and Paludi (1983) made an effort to investigate the incidence of FOS in response to a projective cue free from such implications. Subjects were administered a booklet containing one of two ambiguous verbal cues: "John has succeeded" or "Anne has succeeded". Gravenkemper and Paludi's prediction that subjects allowed to define success for themselves would exhibit relatively little FOS imagery, and that there would not be a significant difference in the proportion of FOS projected by males and females was confirmed. According to Gravenkemper and Paludi (1983), the only two possible explanations for Horner's (1968) results were the gender of the subject and that of the protagonist.

Paludi and Fankell-Hauser's (1986) research developed Gravenkemper and Paludi's (1984) idea that achievement motivation may be more meaningfully investigated by allowing subjects to define success for themselves. Thus, Paludi and Fankell-Hauser adopted Spence and Helmreich's (1972) idea that women's achievement striving could best be predicted from information about these individuals' own specific interests, activities and aspirations. Paludi and her

colleague accordingly adopted a biographical interviewing technique.¹

The reactions to female success recorded in previous research appeared to be more hostile than the attitudes expressed by Paludi and Fankell-Hauser's (1986) subjects. The researchers' explanation was that the definitions of appropriate and acceptable achievement behaviour for women had changed. The analysis of interview content also yielded themes which suggested that success avoidant behaviour was situationally determined. Furthermore, the finding of developmental discontinuities in subjects' achievement striving could be construed as further evidence of the situational nature of the FOS construct.

The possibility that projective cues elicited a reaction to content rather than a direct expression of motive strength led to the development of objective instruments to tap FOS. Objective measures of FOS have not necessarily resolved the problems reported in past analyses of Horner's projective measure. Tresemer (1974, p. 171) warned that, "In embracing any of these new measures, there is a danger of repeating the misunderstandings about Horner's measure with a new instrument".

Paludi (1984) observed that the measure reliability of the objective measures of FOS has not been well documented (Cohen; Feather & Simon; Gravenkemper; Schulenberg, cited in Paludi). Concern has been expressed over the lack of

¹ Paludi and Fankell-Hauser's (1986) argument for the ideographic approach established the validity of the biographical interviewing technique, but the reliability of the technique is notoriously unstable. Thus, for each of the interview questions frequencies and percentages of the subjects' responses were calculated. Each subject was interviewed individually by one of three trained female experimenters and their responses were independently categorized by two coders. The interrater reliability achieved was 94 per cent.

relation between the projective and objective measures of FOS (Paludi, 1984; Reviere & Posey, 1978). Paludi ascribed this to the possibility that not all researchers have conceptualized the construct in the same way. Horner's projective technique was intended to assess the motive to avoid the negative consequences of success, while some of the more recently developed objective measures assess either academic success, competitive success or success in general.

The measurement technique adopted by Spence (1974) attempted to capitalize on the advantages of both the projective and objective methods of measurement. According to Spence the validity of her technique was established by the finding that the objective questionnaire was successful in eliciting the same information from subjects as the projective cues. Spence's findings confirmed that the projective technique measured a multiplicity of factors. Evidence that Horner's projective cue elicited situational factors was obtained by comparing the responses of Spence's male subjects to those recorded by Horner in 1972. Spence, like Horner, found that a substantial proportion of her male subjects responded with negative imagery to the male cue figure. Both studies reported different results to those reported by Horner in 1968. Spence suggested that this was because the measure reflected the current attitudes toward traditional modes of "success" among college men. Spence's measures, both the projective protocols and the questionnaire, reflected the changing attitude of women to success. In contrast to Horner's findings that most females reacted negatively to success, the majority of women in Spence's sample expressed positive imagery in response

to a successful female cue figure.

Sadd, Lenauer, Shaver and Dunivant (1978) conducted a psychometric analysis of a number of FOS scales which revealed that these scales were not necessarily unidimensional. Hyland, Curtis and Mason (1985) also made reference to similar findings by Chabassol and Ishiyama, and Daniels, Accorn and Kazelskis. A factor analysis of the data collected by Sadd, Lenauer, Shaver and Dunivant showed that items from eight different scales loaded onto five different factors, only one of which (concern over the negative consequences of success) approximated the definition of FOS cited in Horner (1969).

Good and Good's (1973) objective scale was employed by Kearney (1984) who sought to clarify the confusion surrounding the measurement of FOS by assessing the FOS construct more globally. Research by Chabassol (1978); Janda, O'Grady and Capps; Pappo and Shapiro (cited in Kearney) demonstrated that presenting a single situation to both sexes in order to assess FOS has the inherent difficulty of biasing the responses of either the male or female subjects, depending on which gender-role inappropriate cue is presented. Thus Kearney proposed to determine whether gender differences existed in terms of a more broadly defined concept of the motive to avoid success, and also to find out if there were any differences in the reasons why men and women feared high achievement. Paludi (1984) described Good and Good's scale as reflecting the belief that FOS was experienced by people who worry about antagonizing others as a result of succeeding - which, in effect, equates fear of the negative consequences of

success. Furthermore, the questionnaire items were not limited to academic situations, thus avoiding one of the shortcomings of Horner's approach.

Comparison of the results gleaned by Kearney (1984) yielded no significant differences between the sexes on overall FOS scores. Also, the result of the factor analysis performed on scores suggested no real gender differences in motivation to avoid success. The factor analysis yielded five factors for the female subjects and five factors for the males, and the themes of four of the factors were common to both males and females. Of primary concern to subjects was that high achievement would provoke negative reactions in others and that success would result in undesirable stress. Other reasons cited were that people would take advantage of their success and interpersonal relationships might suffer. Thus, gender differences in FOS were repudiated by Kearney's finding that there were no real gender differences in the reasons why subjects feared success. Furthermore, Popp and Muhs (1982) and Brenner and Tomkiewicz (1982), who also employed Good and Good's (1973) scale, concluded that their findings of no gender-differences in FOS could be explained by work related or social variables, rather than by the arousal of a motive.

The significance of this methodological research lies in the apparent confirmation that FOS is not a unidimensional, stable personality construct. Spence (1974) stated that although women who incorporated traditionally defined characteristics into their personalities may consider achievement and achievement striving "unfeminine", as suggested by Horner, gender role stereotypes were social

realities. She recognized that although social stereotypes were becoming less rigid, women still faced barriers in their attempts to achieve, especially in male-dominated fields and risked social censure and difficulties trying to resolve the demands of conflicting "masculine" and "feminine" roles.

Gender Related Issues

The controversy regarding the existence of gender differences in FOS is evident in the conclusions of two review articles cited in Golden (1987). Henley concluded that there was no significant difference between females and males in the incidence of FOS imagery. In contrast, Sutherland and Veroff reviewed the same literature, and concluded that FOS has generally been found to be more prevalent among females. Golden commented that while both reviews tended to agree that the differences have never been found to be as large as those originally reported by Horner, their overall conclusions are at odds with one another, and reflect the continuing controversy over the FOS construct.

Studies by Good and Good (1973), Janda, O'Grady and Capps (1978), Solomon (1975), Spence (1974) and Zuckerman and Allison (1976), are among those which have reported greater FOS among females. On the other hand, research by Levine and Crumrine (1973), Morgan and Mausner (1973) and Weinreich-Haste (1978, 1984) found that FOS was more prevalent among males than females. Hoffman (1974), who closely followed Horner's methodology, also reported higher levels of FOS among male subjects. Most studies have yielded no clear indication of differences in FOS levels between men and women (Condry & Dyer, 1976; Curtis,

Zanna & Campbell, 1975; Lockheed, 1974; Popp & Muhs, 1982; Robbins & Robbins, 1973; Zuckerman & Wheeler, 1975). Tresemer (1974) reviewed 42 FOS studies and concluded that gender differences were not supported by the results. Levels of FOS measured in women ranged from 11 per cent to 88 per cent, while in men the variation was from 22 per cent to 86 per cent. A review of 64 studies by Paludi (1984) revealed that the percentage of subjects exhibiting FOS ranged from 6 per cent to 93 per cent in females, and from 7 per cent to 95 per cent in males.

The literature on gender differences has been comprehensively reviewed by Tresemer (1976b), hence the brevity of this review. Furthermore, the current study explored FOS within a female sample rather than gender-differences in FOS. Relevant issues such as the link between FOS and gender-role orientation were discussed.

Fear of Success and Gender-Role Orientation

Research by Alper (1974), Feather and Simon, (1972), Sherman (1987) and Tomlinson-Keasey (1974) focused on the link between FOS and gender-role orientation rather than gender per se. Forbes and King (1983), Hoffman (1974), Tresemer and Sassen (cited in Weinreich-Haste, 1984) and Zuckerman and Wheeler (1975), noted that female achievement anxiety appeared to derive from gender-role expectations.

According to Sherman (1987) this is exactly the point, that women fear success for

gender-role reasons, not that men fear success too. She has stated that because of the relationship between FOS and gender-roles males could not possibly fear success more than women, and she discarded the "hoary concepts from psychoanalysis" cited by Krueger as even more irrelevant (p. 103).

Socialization of Achievement Behaviour

The record of research has established that achievement behaviour is socialized (Alper, 1973; Deaux & Emswiler, 1974; Feather, 1975; Parsons, Ruble, Hodges & Small, 1976; Stein & Bailey, 1973). Feather and Raphelson (1974) and Torki (1985), who investigated achievement motivation cross-culturally, found that achievement behaviour was influenced by shared cultural values and stereotypes. Within any particular culture, parents and other primary socializers teach children the expectancies and patterns of attributions which perpetuate gender differences in achievement by behaving in accordance with those cultural gender-role stereotypes themselves. Erkut (1983) and Bridges (1988) established that attribution and expectancy patterns associated with femininity were neither "conducive nor compatible" with achievement. Research conducted by Hawley (1971) and Hoffman (1972) concluded that the occurrence of FOS may be attributed to the socialization of women and their resultant social expectations.

Horner's description of FOS implied the existence of a relationship between fear of success and gender-role orientation, but according to Major (1979) the direction of the relationship is unclear. Horner asserted that FOS is most likely to occur

among highly achievement motivated, masculine, nontraditionally gender-role oriented women (Horner, cited in Major, 1979). She also observed that FOS should be more common among achievement avoiding, feminine, traditionally oriented women (Horner, cited in Major, 1979). The research investigating this issue has yielded contradictory results.

Caballero, Giles and Shaver (1975), Major (1979) and Topol and Reznikoff (1979) found that females who evidenced high levels of FOS had less traditional ideas about what constituted appropriate behaviour for males and females. These women also espoused more positive attitudes towards the "women's movement". Patty (1976) and Anderson (1978) reported that women who feared success were highly career-oriented, but their ambivalence towards success was reflected in their lack of career dedication and consequent choice of traditionally gender-appropriate occupations. Sutherland (1978) found a correlation between the need for power (nPow) and FOS. Her finding corroborates the theory that women who fear success are those who have the ability and need to achieve, but who fear the consequences of contravening gender-role stereotypes. In contrast, research conducted by Gayton, Havu, Barnes, Osman and Basset (1978), Kearney (1982) and Sadd, Miller and Zeitz (1979) reported that gender-reversed females exhibited significantly less FOS.

Given findings that FOS was more prevalent among college-women with traditional gender-role orientations (Alper, 1973; O'Leary & Hammack, 1975), Peplau (1976) tested the proposition that gender-role traditional females may behave much like

females who fear success. Considering the inconsistent results of studies using Horner's FOS measure, Peplau sought to assess the usefulness of gender-role attitudes or traditionalism as an alternative predictor of female achievement behaviour. While Horner conceived FOS as a latent motive aroused by some aspect of a situation, particularly competition, Peplau tested the hypothesis that the crucial factor was rather the violation of gender-role standards associated with some competitive situations.

In confirmation of Peplau's (1976) prediction, FOS and gender-role traditionalism were found to affect female performance in similar ways. Gender-role attitudes emerged as a more substantial and consistent determinant of female achievement performance than FOS. FOS appeared to have no independent effect on behaviour. Furthermore, Peplau found a significant link between gender-role attitudes and performance in the daily lives of the subjects' outside the laboratory as measured by college grades, SAT scores and career aspirations.

Thus Peplau (1976) concluded that FOS appeared to represent a particular sensitivity to the gender-role implications of achievement settings, and a concern that achievement behaviour is manifested in gender-appropriate ways. This conclusion was supported by studies conducted by Cherry and Deaux (1978), Hawley (1971), Illfelder (1980) and Janda, O'Grady and Capps (1978).

Androgyny

Depner and O'Leary (1976) proposed that the relationship between FOS and gender-role orientation had been attenuated by the crudeness of the measures employed. Specifically, Major (1979) proposed that the inconsistencies observed in previous research concerning the relationship between FOS and gender-role orientation could be attributed to the bipolar categorization of gender-traits. The finding by Bem (1974) and Spence, Helmreich and Stapp (1975), that masculinity and femininity may be orthogonal dimensions, gave rise to the concept of "androgyny". Research has led to speculation that androgynous women may be more flexible in their perceptions of gender-appropriate behaviour and less likely to see successful competition as gender-role inappropriate (Bem, cited in Major, 1975; Bem & Lenney, 1976). The use of a bipolar continuum to measure masculinity and femininity would have disguised the crucial differences between gender-reversed and androgynous females by grouping them within the "masculine" category.

Research on the conceptualization of psychological androgyny has exposed the need to explore the influence of situations on gender-roles (Bem, 1979; Buckley & Hundleby, 1983; Locksley & Colten, 1979; Pedhazur & Tetenbaum, 1979; Spence & Helmreich, 1979). The list of researchers who have submitted evidence that gender-roles differ across situations include Linsenmeier and Wortman (1979) and Ruble and Higgins (1976).

The literature on androgyny was not reviewed in detail, because this concept was not directly relevant to the present study. The point is that there may be a link between the psychological ramifications of the social construction of gender and FOS.

A Test of Gender-Role Stereotypes

Monahan, Kuhn and Shaver (1974) noted that in Horner's original study the nature of the stimulus to which subjects were asked to respond made the issue of gender-role deviancy unavoidable, i.e. subjects were asked to respond to a female student's progress at medical school, which in the late 1960's was a traditionally male dominated institution. Consequently, Monahan et al., extended Horner's study by crossing subject and task factors. The results showed that FOS responses were elicited in reaction to the female cue for both male and female subjects. This suggested a cultural explanation where stereotypes pertaining to female achievement, which are negative, are learned and accepted by both genders. The results of a study conducted by Shinar (1975) confirmed that gender stereotypes of occupations were clearly defined and agreed upon by both male and female college students.

Research by Feather (1975, 1978), Feather and Raphelson (1974) and Makosky (1976) established that reaction to success in a given occupation was strongly related to the gender of the stimulus person and the extent to which the occupation was perceived as gender-appropriate. Breedlove and Circirelli (1974), Lockheed (1974) and Janda, O'Grady and Capps (1978) examined responses to cue figures

in different gender-linked occupations. The results of their experiments indicated that subjects' reactions to successful male and female figures were related to the gender-typed appropriateness of the occupation in which the cue figure was involved. Breedlove and Circirelli's (1974) assessment of the response to female achievement in medicine and education found that the proportion of FOS imagery was significantly greater in reaction to the first cue. Lockheed (1974) reported that the proportion of FOS imagery elicited in response to a female in medicine diminished when the medical school class was described as 50 per cent female. In both of Janda, O'Grady and Capps's (1978) experiments, males exhibited most FOS imagery in response to the cue of a male nurse, while female subjects generated most FOS in response to the figure of a female engineer.

Shapiro (1979) sought to separate the success and gender-role inappropriateness aspects of Horner's cue in order to identify the effect each has on projective imagery. He stated that the issue of gender differences in FOS could not be resolved until the effects of these two factors had been experimentally distinguished. Accordingly, Shapiro developed a cue which depicted success in a traditionally feminine field, and he then compared subjects' responses with the stories Horner's cue had inspired in them. As Shapiro predicted, the data indicated that neither the gender of the subject nor gender-typed activity accounted for a significant amount of the variance when considered individually. The salient independent variable was shown to be the gender-role inappropriateness or the interaction of the gender of the subject and the gender-typed characteristic of the cue.

It has been suggested that males should react with more negative imagery to a successful female cue figure than even females, if FOS is a measure of gender-inappropriate behaviour (Deaux & Emswiller, 1976; Entwisle & Greenberger; Feldman-Summers & Kiesler, cited in Tresemer, 1976b). Tresemer (1976b), however, claimed that male subjects have not written appreciably more FOS imagery to female cues, but rather that the proportion of FOS imagery produced by male and female subjects was comparable. In fact, Tresemer noted that males and females seemed to respond similarly to a successful female cue. Tresemer's finding does not rule out the theory that FOS is a reaction to gender-inappropriate behaviour because attitudes towards the female cue were found to be consistent - which would indicate that these attitudes were rooted in stereotypes shared by both genders. Bremer and Wittig (1980) substantiated this theory by arguing that the absence of gender differences indicated that negative responses to female success could not reflect a motive since, according to achievement theory, males should not identify with female cue figures. Bremer and his colleague concluded that the absence of gender differences was indicative of shared perceptions of the negative social consequences of female-inappropriate success.

The record of research supportive of a situational interpretation of FOS is extensive. Studies which have concluded that FOS is the fear of transgressing norms for gender-appropriate achievement include Alper (1973); Argote, Fisher, McDonald and O'Neal (1976); Bremer and Wittig (1980); Cherry and Deaux (1982); Cook and Chandler (1984); Gibbons and Kopelman (1977); Hawley (1971); Houts and Entwisle (1968); Hyland, Curtis and Mason (1985); Janda,

O'Grady and Capps (1978); Jellison, Jackson-White and Martyna (1974); Konstam and Gilbert (1978); Lockheed (1974); Makosky (1976); O'Leary and Hammack (1975); Shapiro (1979) and Spence (1974). It was reported by Condry and Dyer (1976), Feather (1975), Garland and Berwick-Smith (1981), Monahan, Khun and Shaver (1974), Pfost and Fiore (1990) and Peplau (1976) that FOS themes expressed a realistic awareness of the social sanctions placed on women who do not follow prescribed gender-roles. On the other hand, Stein; Stein, Pohly and Mueller (cited in Garland & Berwick-Smith, 1981) and Stein and Bailey (1973) established that both male and female subjects were motivated to achieve in gender-appropriate activities.

The reason given by Yogev (1976) as to why these findings have been "overlooked" was the prevailing negative attitude towards female achievement during the 1960's and early 1970's. Early research by French and Lesser, and Lesser, Krawitz and Packard (cited in Houts & Entwisle, 1968) had already established that female achievement and academic performance was influenced by how women perceived the female role. In 1963 Heilbrun reported that feminine gender-role identity was incompatible with achievement in college. Khun (cited in Yogev, 1976) found, however, that the interpretation of research relevant to social issues is influenced by the values of researchers. The acceptance of research findings and interpretations relevant to social issues would, therefore, depend on the current larger political, historical and cultural context. Thus it was suggested that studies which were in conflict with the dominant thinking of their time were ignored.

Fitzgerald and Crites (1980) concluded that findings of the inhibition of female achievement behaviour should be explained in terms of the effects of gender-role socialization. Such an explanation concurs with the considerable body of evidence that FOS is a situational variable, without assuming more causes or forces than are necessary to account for the findings, and is also consistent with the value of women's equity.

Competition

Horner (1968) described FOS as a disposition to feel uncomfortable in competitive achievement situations, where the aggressive behaviour necessary to succeed in such situations is considered unfeminine, and is consequently met with social censure. Accordingly, success avoidant behaviour should be evident when females compete - particularly, when their competitors are male and when the task involved is considered masculine. According to Cook and Chandler (1984) behavioural evidence "proves or disproves the existence of a genuine motive". Consequently, research has tested the relationship between FOS and performance.

Makosky (1976) succeeded in establishing an interaction between FOS and female performance in a competitive situation. Evidence of an interaction was apparent in the finding that performance differences between females who feared success, and those who did not, manifested only in the male competitive condition. Makosky also reported that gender-typing of a task interacted with FOS - such that FOS-present females performed better on a feminine-typed task than a task described as masculine. The reverse was true of FOS-absent females. Thus Makosky

demonstrated that, the performance of FOS-present females in competitive situations was dependent on the gender of the competitor and the nature of the task. Research by Lavach and Lanier (1975) and Winchel, Fenner and Shaver (1974) also supported the prediction that cross-gender competition aroused FOS.

The results of Bongort (cited in Popp & Muhs, 1982), Karabenick and Marshall (1974) and Romer's (1975) research only partially supported Horner's (1968) hypothesis that women with high FOS perform more poorly in competition. Karabenick, Marshall and Karabenick (1976) replicated Makosky's (1976) finding that male competition negatively affected performance among females who feared success. However, Karabenick, Marshall and Karabenick reported that same-gender competition did not adversely affect the performance of FOS-present females. In fact, FOS-present females performed better against female opponents than when they performed alone. This finding is not explicable in terms of Horner's (1968, 1969) prediction that FOS-present females would perform more poorly in competitive situations.

The confusion surrounding FOS is pervasive - support for the relationship between FOS and performance has been inconsistent. Heilbrun, Kleemeier and Piccola (1974), Lentz (1982) and Sorrentino and Short (1974) reported that women high in FOS performed better in competitive situations than men! Zuckerman and Wheeler's (1975) review of 16 studies did not, however, find any reliable gender differences in subjects' motivation to avoid success in competitive

situations. Research by Althof (cited in Popp & Muhs, 1982), Argote, Fisher, McDonald and O'Neal (1976), Bremer and Wittig (1980), Entwisle (1972) and Feather and Simon (1973) found no evidence of a relationship between FOS and performance.

Patty (1976) attributed the inconsistencies in the research to inaccuracies in Horner's theory of FOS. She argued that, if Horner conceptualized the motive to avoid success as inhibiting achievement motivation then, by definition, it must be subtracted from the tendency to achieve. Therefore, the performance of females who fear success should always be inferior to the performance of FOS-absent women. Research has revealed that this does not hold true across all situations. Patty added that since the components defining the engagement of the motive to achieve success and to avoid success are identical, except for the motives themselves, that the performance changes across different situations could not be predicted by Horner's theory.

Generally, studies of the relationship between competitive behaviour and FOS have established that there is a complex interaction between the gender of competitors, the extent to which the field of competition is regarded as male specific and the degree to which subjects evidence traditional gender-role orientations (Alper, 1973; Byrd & Touliatos, 1982; Leder, 1980; Levine, 1975; Makosky, 1976). It is possible, however, that these findings are the artifact of environmental influence, or gender-role stereotypes, rather than evidence of the arousal of a motive to avoid success (Groszko, 1974; Karabenick &

Marshall, 1974).

Stake (1976a,b) suggested that gender differences in performance may be the outcome of learned norms of higher achievement among males, rather than FOS. The tendency among females to set lower goals than males is well documented (Stake, 1976a). To test the FOS explanation for gender differences in goal setting, Stake (1976b) examined goal setting in private, non-competitive situations, because according to Horner's hypothesis, FOS would not explain lower goal setting in private settings where competition is not emphasized. The results of Stake's study confirmed her hypothesis that gender-group performance norms would affect goal setting in private, uncompetitive situations. Analysis revealed that there was no significant difference between male and female goal setting overall when the variable of gender was considered independently of beliefs concerning gender performance norms. In fact, Mack (1975) reported that females may behave as competitively as males, or even more so, once elements of cross-gender competition and stereotypically inappropriate fields of endeavour are partialled out.

Morgan and Mausner (1973) reported that the relationship between behavioural and fantasized avoidance of success was inconsistent. What Morgan and Mausner discovered was that behavioural avoidance of success was not paralleled in fantasy. Although some of their female subjects did react with ambivalence about success to Horner's cue, most of their imagery resembled that generated by the success-avoidant males. The researchers interpreted the repetition of themes

common to both males and females as indicative of a "generalized rejection of the establishment" influenced by an acceptance of women's liberation ideology, rather than a reflection of the problems of being female. The behavioural data were completely different in character. Subjects were asked to perform a task, the second half of which was completed within a cross-gender dyad. Strong evidence for the manifestation of traditional gender-roles was reported. Thus the stories written about Anne may have elicited the "new thinking" produced by the Women's Liberation Movement, while the performance task evoked learned gender-role behaviour patterns. Morgan and Mausner claimed that it was possible that despite the apparent acceptance of female achievement, that subjects reverted to learned patterns of "diffidence and withdrawal from assertiveness" and allowed their male partners to maintain relative superiority.

Mausner and Coles (1978) sought to clarify Morgan and Mausner's (1973) findings by testing several additional hypotheses. Mausner and Coles found that for neither males nor females did the gender of their partner affect performance on a cooperative task. Although females, more so than male subjects, depressed their performance below the level of their demonstrated competence when working in pairs. Women who worked in like-gender pairs depressed performance almost as much as the female subjects who worked with males. The results indicated that depression of performance was not specifically a reaction to the gender of the working partner, but a generalized reaction to successful performance in public rather than private. Tests and questionnaires administered to the subjects revealed that the difference between those who

depressed performance and those who did not was that depressors had lower grades, SAT scores, nAch and lower aspirations to advanced education. A possible explanation for these differences may be found in the different socialization experiences reported by subjects who depressed their performance. Thus it seems that the developmental history of these women made them more vulnerable than men to social pressures to avoid competition.

Morgan and Mausner (1973) reiterated Mischel's warning of the danger of assuming that generalized traits, independent of learned reactions to stimuli in a situation, be used to characterize individuals and to predict their behaviour. Meanwhile, Morgan and Coles (1978, p.48) stated that, "... it remains to be seen whether changes in childrearing and in social atmosphere will produce women willing to walk through the doors opening for them.

Ability

Horner (1969) contended that women develop the motive to avoid success as an adjustment to the conflict engendered by aspirations towards success and the negative social reaction to that success. Thus, Horner predicted that FOS would be more prevalent among high-ability females who are career-oriented. Without such an orientation Horner stated that ambivalence towards success would be meaningless.

Horner (1969) reported that most of the high FOS subjects in her study were capable students with histories of academic success. Hoffman's (1974) attempt

at replicating Horner's original study confirmed that FOS was characteristic of able students.² Despite the conflict suffered by these students, however, Hoffman reported that her subjects performed at high levels - in general. Tresemer (1976b) claimed that a re-examination of Horner's data suggested that the greatest performance decrement was accounted for by females both high in FOS and low in the need for achievement. Research by Berens and Fleming (cited in Fleming, 1977) also found that the interaction between high FOS and low nAch improved the prediction of performance. A survey of studies that measured ability in the form of SAT scores, grade point averages, IQ tests and career goals led Tresemer to conclude that, "as a whole FOS has shown no relationship to ability" (p.86).

The question of whether FOS is linked to career-oriented or nontraditional women involves the issue of the relationship between FOS and gender-role orientation. Most of the research reviewed on this topic supported the argument that traditional women were more likely to fear success.

Fleming (1977) noted that although there is evidence that able, achievement-oriented women experience conflict, this does not preclude the possibility that traditional women may also experience conflict in certain circumstances. Furthermore, Fleming pointed out that close attention to the findings "conveys the sense" that there is a difference between conflict arousal as observed among achievement-oriented women, and functional debilitation among traditionals. A

² The comparability of the results of these two studies has been discussed in a methodological criticism by Hoffman (1982).

study conducted by Fleming (1978) on black college women provided evidence for this distinction.

Thus far, each of Horner's (1968) predictions about the motive to avoid success has been challenged. FOS was not found to be more prevalent among women, it remains unclear whether FOS is more characteristic of capable, career-oriented women, and neither was the motive found to be aroused by competition alone. What has consistently emerged is that achievement behaviour is linked to the social demands of a particular situation rather than to the arousal of the motive to avoid success.

Stability of the Motive to Fear Success

Horner (1969) claimed that FOS, like the achievement motive, developed early in childhood and became a relatively stable attribute of personality, highly resistant to change. Stability across situations and resistance to change over time were also recognized by Cook and Chandler (1984) as qualities definitive of a motive.

Hoffman (1977) readministered the FOS cue to 158 of the 177 subjects involved in Horner's original study. The results of this study provided mixed evidence for the stability of FOS. Comparison of the FOS scores revealed that a number of the subjects who had shown evidence of FOS in the original study were found to be FOS-absent in Hoffman's study. However, subjects who had shown no evidence of FOS in the initial study were reassessed as such. Hoffman proposed that the decrease in prevalence of FOS among female subjects could be attributed to

conformity to societal expectations and the avoidance of situations which would incur social censure. This suggestion arose from findings that women high in FOS in the original study were significantly more likely than those low in FOS to become pregnant when on the verge of success relative to their husbands or boyfriends. It was also proposed that the decrease in FOS may have been a function of the different testing conditions. It was not possible for Hoffman to recreate a testing situation comparable to that of Horner's original study. However, subjects' need for achievement scores were not lower in Hoffman's study, and the total pattern of findings did not support this argument.

Tresemmer (1976b) tested the assertion that FOS had decreased among females since Horner conducted her study in 1968. To assess this, he studied samples grouped by the academic year in which the data was collected. Tresemmer cited three publications by Dube (1973, 1974, 1975), which reported the proportion of women entering first year medical school in each of the academic years listed. He then compared the number of females entering medical school with the proportion of negative reactions to the projective cue of "Anne". Tresemmer predicted that the greater the proportion of females in a class, the less "out of place" a successful female cue figure would be, and the less FOS imagery should be generated in response to this cue.

Tresemmer (1976b) could not discern a clear trend between the proportion of females entering medical school and FOS data. Although, he did note the emergence of an "interesting coincidence" between an increase in the proportion

of women admitted beyond 10 per cent, and a sudden decrease in FOS imagery to what seemed to be a stable level. The data was collected during a period significant in terms of large-scale social changes. Hence Tresemer's suggestion that the proportion of women admitted to medical school, and the proportion of women responding with FOS to the medical school cue, may have been subject to these social changes.

Levine, Reis, Turner and Turner (1976) found evidence that the prevalence of FOS had decreased over time. The explanation advanced for the subsidence of FOS was the growth of the Feminist movement and the concomitant redefinition of gender-roles which followed in its wake. Levine et al.'s explanation was based on their finding that the gender of subjects' partners did not affect attributions of success. These researchers postulated that FOS would be manifested by a self-derogatory attributional bias. It was suggested that if FOS was more prevalent among females, then they should be more likely to attribute their successes externally and their failures internally. Female students were found to employ a rational attribution strategy to account for their performance. Furthermore, successful females were not negatively evaluated by their defeated male partners. This finding conflicts with the results of earlier research by Monahan, Kuhn and Shaver (1974).

Whether the results of Levine et al.'s (1976) study can be explained in terms of current cultural stereotypes has been questioned in light of the fact that heterosexual interaction was not emphasized, and nor was task-ability gender

linked. Another criticism of this explanation was that the social nature of the task may account for the "change" in attributions. Success and failure at the anagram task set for subjects may have been less salient for females than males. Hence the rational attributions made by female subjects for their performance.

White, de Sanctis and Crino (1981) raised the point that if the changes in cultural values which have been documented are responsible for the decrease in FOS, then women who have attained success should exhibit personality and behaviour patterns similar to those of men of equal standing. Hodgetts, Pryor, Mills and Brinkman (cited in White et al.) compared the values of successful females with those of successful males (as compared by the Allport, Vernon, Lindzey Study of Values), and found that "successful women have quite similar profiles to not only men in general, but successful men in particular" (p.567).

Fear of Success as an Age Related Phenomenon

Horner's (1969, p. 38) description of how the motive to avoid success developed "early in life along with other [gender]-role standards", implied that FOS should be evident early in the individual's development and should increase with age as gender-role standards are internalized.

Jackaway (1974) tested the hypothesis that if achievement is a stable personality characteristic which develops early, and if FOS is an integral part of the nAch, especially for women, then FOS should be traceable in the development of females. The results of her study did not support the hypothesis that gender

differences in FOS existed in children. This outcome was consistent with Kagan and Moss's (cited in Jackaway) finding that there were no gender differences in the number of nAch themes written by children.

Horner (1968, 1972) reported that FOS was high among female college students, because the conflict between achievement and gender appropriate behaviour engendered by the competitive environment aroused the motive to avoid success. Breedlove and Circirelli (1974) also observed how the level of FOS increased as women approached graduation and faced the prospect of competing against men in the workplace. However, this finding does not necessarily support Horner's theory of a motive to avoid success. Breedlove and Cicirelli pointed out that students were familiar only with the learning situation where both males and females were conditioned to the "unique pattern of succeeding". Outside of this environment females may fear the outcome of transgressing gender-role stereotypes. Thus the heightened level of FOS measured could have been an artifact of that situation. Baruch (1975), Lavach and Lanier (1975) and Kimball and Leahy's (1976) findings of increased FOS among female adolescents could also be interpreted as acquiescence to increasing social pressure to conform to traditional gender-roles as these girls approached womanhood.

In 1976 Horner was quoted as saying, "Women are still anxious and all that seems to have changed is the timetable, whereas women were beset by such fear when high school seniors or college freshmen, now it seems to happen later, perhaps as a college senior or in a first job" (extract from Horner's address to the 129th

annual meeting of the American Psychological Association, quoted in van der Westhuizen, 1986).

However, Popp and Muhs (1982) found that older employees scored lower on FOS than younger employees, and Freilino and Hummel (1985) reported that adult students exhibited less FOS than their younger counterparts. Freilino and Hummel's finding was confirmed by both a projective and an objective measure of FOS. Each subject was administered Horner's original cue and also asked to respond to a ten-item multiple-choice FOS questionnaire. (The questionnaire was designed by Spence and modified by Freilino and Hummel.) The explanation given by Freilino and Hummel was that older subjects would have established their competence in traditionally feminine domains, and consequently would not suffer the "deprivation of social support" experienced by younger subjects for their achievement strivings. Freilino and Hummel concluded that their data on FOS implied that women's attitude towards achievement was related to "life experiences", particularly the development of intimacy concerns.

The inconsistent relationship between FOS and age was not explicable in terms of Horner's (1969) theory of how the motive to avoid success is internalized. Furthermore, the apparent susceptibility of FOS to change over time challenges the definition of the construct as a motive (Cook & Chandler, 1984). These findings can, however, be explained if FOS is a learned response to particular situational cues. Even long term changes in FOS could occur as a result of appropriate situational influences (Hyland, Curtis & Mason, 1985).

Is Fear of Success a Motive or Not?

The contradictory findings characteristic of FOS research have challenged the basic assumptions which Horner made about this construct, and even whether FOS is a motive. In the face of the criticism of Horner's theory, a situational explanation of FOS has gained credibility. As pointed out throughout the preceding discussion, much of the confusion would appear to be resolved within the framework of a situational interpretation of FOS.

Proponents of a situational explanation of FOS have pointed out that this framework can be accommodated within the expectancy-value theory of achievement (Jellison, Jackson-White, Bruder & Martyna, 1975). Both theories work on the assumption that achievement behaviour is influenced by expectancies about the consequences of performance. Specifically, the situational theory would hold that expectancies about the consequences of performance are a function of cues within a particular situation, and consequently expectancies and behaviour could change from one situation to another.

Ward (1978), however, criticized the situational explanation of FOS. Ward charged the proponents of this view with a simplistic approach to achievement motivation, and of misunderstanding the expectancy-value theory within which the motive to avoid success was conceptualized. Ward argued that the situational explanation was not a plausible alternative for Horner's motivational construct because these views are not antithetical. According to Ward, the discrepancy between the viewpoints lies in Condry and Dyer's tendency to discuss the

construct as merely reflective of realistic expectancies, while according to Horner's theory these same expectancies are incorporated into personality dispositions and directly affect motivation. Although Jellison, Jackson-White, Bruder and Martyna (1975) acknowledged that history can influence personality, they claimed that it is the immediate reinforcement history of similar situations which influences expectations about the reward structure in a situation. This was demonstrated by a study conducted by Fisher, O'Neal and McDonald (cited in Jellison et al., 1975).

Nevertheless, Shaver (1976, p. 317) stated that, "I often find myself arguing against glib critics of Horner's research but I accept her basic theoretical notions, no matter how flawed her performance data, because I have known well the kind of women she is talking about, and they have recognized themselves in her writings. This 'empirical evidence' is, in my opinion, much more important than anagram scores, even though it is obviously prescientific". Shaver's sentiments are reflected in the question why female underachievement persists? Despite the decline in proscriptive norms concerning female occupational success, the removal of structural barriers to success, and the increase in the percentage of women aspiring to high status, typically masculine occupations (Cole; Jama; Mason, Czaka & Arber; Spitze & Huber; Thornton, Alwin & Camburn; Thornton & Freedman, cited in Fiorentine, 1988). White, de Sanctis and Crino (1981) noted that although the number of women in management positions in America would seem to be rising, male managers continue to outnumber females (3:1). The latest demographic statistics released by the South African Central Statistical Services (1995) revealed

that males outnumbered females 4:1 in managerial, executive and administrative occupations. White et al. maintained that although resistant stereotypes may explain some of the delay in female advancement (Belif, cited in White et al.), female differences on personality dimensions must account for recurring gender differences in achievement.

The question of whether FOS is a motive or not remains unresolved. Hence the purpose of the current study was to re-explore the nature of the FOS construct. The study was designed to explore FOS in terms of the construct's relationship to a number of theoretically related personality and situational variables. It was proposed that establishing whether these variables predicted FOS and, in particular, which variables predicted the occurrence of FOS, would reveal something about the nature of the construct.

CHAPTER 3

INVESTIGATING THE RELATIONSHIP OF FEAR OF SUCCESS TO SELECTED CONSTRUCTS

Research by Spence (1974) suggested that a multiplicity of factors were probably subsumed within the FOS construct. Depner and O'Leary (1976), Popp and Muhs (1982) and Wood and Greenfield (1976,1979) are among the researchers who have suggested that future attempts at clarifying the nature of FOS should involve investigating this construct as a measure of other, possibly related variables, and not purely as a measure of women's anxiety about achievement.

Tresemmer (1976a) investigated the "relational fertility" of FOS, but found that "there was a relatively low degree of interrelatedness between fear of success and theoretically important and related variables" (p.230). However, the logic of Cronbach and Meehl's statement that, "the nomological net of propositions in which a construct is embedded must show predicted relationships with that construct" - remains irrefutable (cited in Tresemmer, 1976a). Consequently, the present study sought to re-explore the nature of FOS using a similar approach. The question posed was whether the occurrence of FOS could be predicted by variables which bear theoretical relationship to that construct.

The confusion with regard to the nature of FOS motivated the inclusion of both personality and situational variables in the investigation. Among the variables investigated were Self-Efficacy, Negative Affect, Positive Affect, Autonomous

Achievement Values, Social Achievement Values, Attitudes Towards Women and age. Schnitzer (1977) noted that research subsequent to Horner's has generally pursued the line of reasoning that relates FOS to culturally defined prohibitions of achievement. Researchers have concentrated on exploring either situational or sociological variables rather than personality variables (Lockheed, Tresemer, Weston & Mednick, cited in Schnitzer, 1977). Schnitzer suggested that while it may be useful to understand FOS as a culturally derived phenomenon resulting from the achievement barriers society has created for women, sight should not be lost of a complementary way to pursue its meaning - as a personality variable which is operative in both males and females, and is related to broader aspects of personal functioning.

Self-Efficacy

Bandura (1982, 1986a, 1986b, 1986c) identified Self-Efficacy as a key concept in social learning theory. Self-Efficacy was defined by Bandura as, "an individual's judgement of his/her ability to organize and execute the action necessary to perform various tasks" (Bandura, 1982, p.123). Self-Efficacy was hypothesized to influence choice of activities, amount of effort expended, perseverance in the face of difficulties and task accomplishments. Self-Efficacy has also been identified with the origins of psychological strength or "fortigenesis" (Strümpfer, 1995). Strümpfer listed self-efficacy as a related construct in which the metaphor of strength was inherent.

Maddux, Sherer and Rogers (cited in Sherer, Maddux, Mercandante, Prentice-Dunn, Jacobs & Rogers, 1982) described two types of expectancies which

influence behaviour. These were the belief that certain behaviours will lead to certain outcomes or "outcome expectancy" and self-efficacy expectancy which refers to the belief that one can successfully perform a particular behaviour. Sherer et al. stated, that according to Bandura, expectations of Self-Efficacy are the most powerful determinants of behaviour. Marziller and Eastman (1984) argued that what an individual conceives as the likely outcome of activity is equally important in governing behaviour. Bandura (1986b) acknowledged the role of outcome expectations in performance, but argued that expected outcomes depended on self-perceptions of performance capabilities and are less important in determining behaviour. Self-Efficacy was conceived as the primary cognitive determinant of whether or not an individual will attempt a given behaviour.

Betz and Hackett (1981) were the first to apply the Self-Efficacy concept to career-related expectations. These researchers noted the relation of the Self-Efficacy construct to the concept of subjective probability of success, a concept central to achievement motivation theory (Grubbs, Hardin, Weinrich, Weinrich, Garrison, Pesut & Hardin, 1993). Betz and Hackett's causal model of career development documented the diverse ways in which situational influences and socialization practices contribute to developmental paths by the types of competencies and self-beliefs they cultivate.

The two studies most often cited in support of Hackett and Betz's theory (Hackett & Betz, 1981; Wheeler, 1983) have, however, been criticized as methodologically flawed (Clement, 1987; Stickel & Bonnet, 1991). Clement criticized the

operationalization of the Self-Efficacy construct. Moreover, Clement claimed that the finding that female subjects evidenced less Self-Efficacy for male-dominated occupations than their male counterparts was not evidence that this prevented women from pursuing such occupations. According to Clement, women's reluctance to enter traditionally male occupations might reflect a realistic awareness of the problems women would encounter. Thus she stated that the evidence for a Self-Efficacy theory of women's career preferences was not conclusive.

Self-Efficacy and Motivation

According to Bandura, Adams, Hardy and Howells (1980) and Bandura (1986b) the commonality of the Self-Efficacy mechanism in motivation and achievement has been established by extensive research which has shown the generalized replicability of causal dependencies. Schunk (1984, 1991) and Post-Kammer and Smith (1985) established the utility of Self-Efficacy for predicting motivational outcomes. Abdalla (1994) cited studies by Layton; Lent and Hackett; and Taylor and Popma, which found that Self-Efficacy beliefs were superior to variables such as interests, abilities and locus of control in predicting career behaviour. Schunk (1991) cited the results of a study conducted in 1982 and studies by Collins, Schunk and Mason; Schunk, Hansom and Cox; and Shell, Murphy and Bruning as supporting the utility of Self-Efficacy for predicting achievement.

Betz and Hackett (1981) and Hackett and Betz's (1981) theory of career Self-Efficacy posited that females' career interests are restricted by self-beliefs that

traditionally male occupations are inappropriate. This theory was based on the finding that male students believed themselves equally efficacious in both male and female-dominated occupations, whereas females reported higher Self-Efficacy in female-dominated occupations and lower Self-Efficacy in male-dominated occupations. Research supportive of this thesis has been cited in Arch (1992), Betz and Hackett (1981), Hackett and Campbell (1987), Landino and Owen (1988), Post-Kammer and Smith (1985,1986), Schunk and Lilly (1984) and Wheeler (1993). Betz and Hackett's findings have been replicated in different cultures.

Abdalla (1994) reported that, compared to their male peers, female Arab students had high preference and high Self-Efficacy expectations regarding traditional occupations, and lower preference and Self-Efficacy expectations regarding nontraditional occupations. Matsui, Ikeda and Ohnishi (1989) conducted a study among Japanese college students. They found that females reported lower Self-Efficacy in male-dominated occupations than female-dominated occupations to the extent that they believed they had fewer female role-models in nontraditional occupations, and that they perceived themselves as feminine. The replication of Betz and Hackett's findings, despite differences across studies in the occupations studied, the cultural background and social systems, has established the pattern of gender differences in career Self-Efficacy for college students. Only a few studies have not found gender differences in Self-Efficacy (Hong & Grambow, 1986; Lent, Brown & Larkin, cited in Stickel, 1991). Lent et al. reported that they did not find gender differences in areas traditionally regarded as male-dominated. Stickel pointed out, however, that the relatively "select, homogenous" nature of

Lent et al.'s sample mitigated against finding gender differences.

Gender differences in career Self-Efficacy are perpetuated by the traditional socialization of females (Bandura, cited in Grubbs et al, 1993). Females are either not encouraged, or actively discouraged from engaging in activities that serve to increase and strengthen expectations of personal efficacy. For example, boys are more likely to gain experience in a variety of domains outside the home than girls whose experiences are traditionally focused on domestic activity. (Maccoby & Jacklin; Sherman, cited in Betz & Hackett, 1981 and in Lent & Hackett, 1987). Bandura (1986b) noted that enactive performance is the most powerful source of efficacy information. Therefore, differential access to the sources of efficacy information would result in differential skill acquisition, and consequently gender differences in Self-Efficacy judgements for traditional female or male career competencies. Bandura and Adams (cited in Hackett & Betz, 1981) identified the types of social information influential in the development of feelings of Self-Efficacy.

Lenney (1977) reported that a review of the evidence on gender-differences in Maccoby and Jacklin revealed that the most important gender difference in achievement-related characteristics was self-confidence. That is, self-confidence defined in terms of performance expectancies, self-evaluation of ability and attributions for success. This conclusion was supported by more recent research conducted by Goh and Mealiea (1984). Research has documented the female tendency to hold lower expectancies for success than males. The fact that

women are less likely to attribute success to ability than males, particularly on masculine-type tasks, has also been noted (Crandall; Deaux; Maccoby & Jacklin; Parsons & Ruble, cited in Schunk & Lilly, 1984). To the extent that gender-role stereotypes perpetuate the perception that females are less competent than males on "masculine" tasks, women will not expect to succeed, and unexpected successes will not be attributed to ability (Deaux, cited in Schunk & Lilly, 1984). Attributional variables constitute an important influence on Self-Efficacy because future expectancies of success and failure depend on ascriptions for prior outcomes (Schunk & Lilly, 1984).

Given the centrality of the Self-Efficacy construct to motivation and achievement theory, Betz and Hackett (1981) and Hackett and Betz (1981) postulated that the underrepresentation of women in nontraditional occupations (Farmer, 1976) could be attributed to the differential expectations of Self-Efficacy documented between males and females.

The Relation of Self-Efficacy to Fear of Success

Self-Efficacy theory, as conceptualized by Bandura (1977, 1986), proposed that it was primarily perceived inefficacy in coping with potential aversive events that gave rise to both fearful expectations and avoidance behaviour. According to this theory, people who believe they are inefficacious suffer anxiety, tend to avoid activities they believe exceed their coping ability, and in the process constrain and impair their level of functioning (Betz & Hackett; Beck; Emery & Greenberg; Lazarus & Folkman; Meichenbaum & Sarensen, cited in Ozer & Bandura, 1990).

Within the parameters of the social cognitive theory it is conceivable that an individual experiencing feelings of inefficacy may exhibit the symptoms of an individual who fears success.

Thus, fearful expectations and avoidance behaviour could be interpreted as coeffects of perceived coping inefficacy rather than the result of fear of the negative consequences of success. Bandura stated that Self-Efficacy is not a passive trait, but is part of a larger social learning framework which acknowledges the transactional, reciprocal nature of person-environment influences. Self-Efficacy is influenced by and, in turn, influences performance, but is not reducible to objective skills (cited in Lent & Hackett, 1987). The interaction between self-percepts of efficacy and the environment could potentially explain why "FOS" has been found to be situation specific, and why success avoidant behaviour has become less prevalent as gender-role stereotypes have changed (Landino & Owen, 1988; Lenney, 1977; Schunk, 1991).

Attitudes Towards Women

Researchers of the psychology of women have claimed that achievement plays a secondary role in the lives of women. Bardwick's research appeared to confirm this with the finding that college men were primarily occupied with achievement, while the dominant motive among college women was affiliation, and achievement was only of secondary importance (cited in Lunneborg & Rosenwood, 1972). Such findings have been cited in support of Horner's (1968) theory that women are concerned about the negative consequences of success or social censure, and

therefore foster a motive to avoid success. There is evidence, however of the breakdown of traditional stereotypes of females as affiliative and males as achievement oriented. Lunneborg and Rosenwood (1972) replicated Bardwick's study and reported that, "It would be more accurate to describe college men and women as currently possessing both these needs" (p.795).

The outcome of investigating the relationship between gender-role stereotypes, or attitudes towards the role of women in society, and FOS would have implications for the argument that the motive to avoid success is a situational variable. This investigation would also raise the issue of the relationship between gender-role orientation and FOS. The uncertainty about the direction of the relationship between gender-role orientation and FOS was noted in the previous chapter. Major (1979) cited both Horner's description of FOS as an expression of traditional attitudes towards ambitious women, and her statement that FOS was the conflict or fear experienced by ambitious, nontraditional females in threatening conditions. Research supportive of both relationships was presented, although the weight of research favoured the relationship between FOS and traditionalism. However, Caballero, Giles and Shaver (1975) noted that "casual inference" may create the impression that because FOS stories portray ambitious females in a negative light, fear of success would be predominant among traditional or conservative females.

Research which has explored the relationship between attitudes about the appropriate rights and roles of women in society (Attitudes Towards Women Scale

compiled by Spence, Helmreich & Stapp, 1973) and relevant career variables found that liberal women were more likely to choose nontraditional careers than conservative women (Valentine, Ellinger & Williams, cited in Foss & Slaney, 1986). Similarly, Foss and Slaney reported that liberal females were found to have fewer conventional occupational interests, to engage in less gender-role stereotyping and were more autonomous than women with more conservative attitudes.

It was anticipated that the establishment of a predictive relationship between traditional attitudes towards the role of women and FOS would support a situational interpretation of FOS, and explain the fluctuations in FOS in terms of the breakdown of traditional stereotypes.

An interesting consideration is the relationship between gender-role orientation and Self-Efficacy described by Foss and Slaney (1986). Foss and Slaney investigated the relationship between scores on the Attitudes Towards Women Scale and career choices. Female subjects were exposed to a videotape intervention which focused on career development, and were then administered a variety of outcome measures. They found that although the intervention did not affect the traditionality of women's own career choices, the careers they chose for hypothetical daughters were considerably more nontraditional, especially the choices made by the more liberal subjects. Furthermore, the scores of the more liberal female subjects on the self-efficacy scale (Vocational Self-Efficacy Scale developed by Betz & Hackett, 1981) led the researchers to conclude that these women did not lack faith in their ability to make career decisions and nor did they doubt their ability to successfully

meet the demands of less traditional occupations.

Foss and Slaney's (1986) findings may describe the relationship found by Betz and Hackett (1981) between gender differences in Self-Efficacy beliefs and preference for male or female-dominated occupations. Foss and Slaney's liberal subjects, like the males observed by Betz and Hackett, may have held equally strong Self-Efficacy beliefs for both traditional and nontraditional occupations. Which would imply that conservative, or traditionally feminine women hold stronger self-efficacy beliefs for female-dominated or traditional occupations. Thus an interrelationship could exist between Attitudes Towards Women, or conservatism, feelings of inefficacy and FOS.

Autonomous and Social Achievement Values

Autonomous Achievement and Social Achievement Values are distinctly independent dimensions of achievement. A number of factor-analytic studies have generated empirical support for a distinction between these achievement orientations (Bendig; Costello; Jackson, Ahmed & Heapy; Veroff, McClelland & Ruthland, cited in Strümpfer, 1975).

Strümpfer (1975) devised a scale to measure Autonomous and Social Achievement Values using a mixed-gender sample of South African university students. Veroff (cited in Strümpfer) described Autonomous Achievement as the desire to achieve internalized, personal standards of excellence. Strümpfer's list of some of the dimensions on which the Autonomous Achievement Values construct was

measured described the construct in concrete terms. This list included concern for doing one's best, getting ahead through hard work, and reliance on internalized standards for evaluating performance. Social Achievement was defined by Veroff (cited in Strümpfer) as the response to standards set by others. Battistich, Thompson, Mann and Perlmutter (1982) noted that socially oriented individuals did not invest much effort in "getting ahead", at least with respect to academic achievement. Such individuals relied on behaving in socially acceptable ways to get ahead. They were highly attuned to the behaviour of other people in the environment and readily altered their behaviour with regard to the perceived social contingencies. Social Achievement was thought to incorporate non-achievement values such as the need for recognition, succourance and sociability (Veroff, cited in Strümpfer). The dimensions identified by Strümpfer as measuring Social Achievement included concern over competition, obtaining social recognition for one's accomplishments, and reliance on social comparison processes for evaluating performance.

Strümpfer (1975) described how Autonomous Achievement behaviour developed first, so that a child's early feelings of competence did not involve social competition. By the early school years, social comparison enabled the child to learn about itself in relation to the world - such comparison conveyed information about "norms for socially approved, proper performance" (p.191). Ultimately, Autonomous and Social Achievement motivation should be integrated. Stein and Baily (cited in Battistich et al., 1982) observed, however, that females pass through the developmental sequence more slowly than males and less often reach the final

stage of integration. According to Strümpfer, when the norm-setting function dominates a person's thinking about achievement such that it supercedes the informational function, then Social Achievement standards will over-ride Autonomous Achievement standards. This situation could explain the occurrence of FOS. Indeed, Veroff (cited in Battistich et al., 1982) suggested that the inconsistencies reported in achievement research may be accounted for by differences between the importance attached to Autonomous and Social Achievement by males and females.

If it could be established that the Social Achievement concept predicted FOS, then it may be possible to conclude that FOS is induced by adherence to traditional gender-role stereotypes, because Social Achievement Values encompass the acceptance of norms for socially approved behaviour. In this case an inverse or negative relationship might also be expected between Autonomous Achievement Values and FOS. Although, Autonomous and Social Achievement Values are independent measures of achievement.

Positive and Negative Affect

Research has documented the tendency among females (Sarason; Sarason, Davidson, Lighthall & Waite, cited in Hackett & Betz, 1981) and feminine gender-typed persons (Biaggio; Nielson; Gall, cited in Hackett & Betz) to experience high levels of anxiety. Ingram, Cruet, Johnson and Wisniki (1988) established that females, especially those with a feminine gender-role were more likely to exhibit affective reactivity for negative events.

Indeed Karabenick, Marshall and Karabenick (1976) reported finding a relationship between FOS and affect. They found that affect ratings within their sample were consistent with the general prediction that FOS-present females would suffer more negative experiences succeeding against males, while the opposite described the experience of FOS-absent females. Karabenick et al. noted that, as with the TAT, what was revealed by the affect ratings were feelings and thoughts about the negative consequences of success. Brenner and Tomkiewicz (1982) found that FOS correlated significantly with other fear-related constructs, such as the fear of appearing incompetent. Thus, Brenner and his colleague concluded that some individuals may naturally experience a greater sense of fear, in general, than others.

Consequently, Positive and Negative Affect were included among the variables investigated in order to establish whether FOS may be related to an innate disposition.

Studies of the structure of affect have revealed that Positive and Negative Affect tap two independent dimensions of an individual's affective state, i.e. transient fluctuations in mood (Diener; Diener & Emmons, cited in Nelson, 1990; Watson, 1988; Watson, Clark & Tellegen, 1988). Tellegen (Watson, Clark & Tellegen, 1988) also demonstrated that these factors are related to corresponding affective trait dimensions of positive and negative emotionality, i.e. persistent differences in general affective level (Diener; Diener & Emmons, cited in Nelson (1990) and also in Watson, 1988).

Trait Negative Affect has been identified as one of the "Big Five" dimensions of personality (Goldberg, 1990). There was agreement that one of the dimensions represented the presence and effects of Negative Affect. This dimension was labelled "Neuroticism" or "Emotional Stability" (Barrick & Mount, 1991; Digman, 1990). Clark and Watson (1991) described the most important characteristic of the negative affective state as the, "pervasive tendency to experience a wide variety of negative and upsetting emotions. Distressed mood states such as anxiety, tension or jitteriness and worry are central, but anger, frustration, hostility, contempt, disgust, guilt, worthlessness, dissatisfaction, feelings of rejection, sadness, loneliness, discomfort, irritability, and so forth are also frequently experienced..." (p.222). Strümpfer, Danana, Gouws and Viviers (1995) concluded from research conducted by Watson and Clark, that Negative Affect was not simply a matter of greater subjectivity to stressful situations, but apparently a higher basal level of negative emotional experience. Persons high on Negative Affect reported higher levels of negative mood across all types of situations, even in the absence of obvious stressors. Negative Affect appeared to have a consistent and pervasive influence on the way an individual experienced, interpreted and reflected on himself/herself and the world around them.

Watson and Clark (cited in Strümpfer, et al., 1995) and Watson, Clark and Tellegen (1988), reported that trait Positive Affect corresponded to the dominant personality factor of Extraversion. The state of Positive Affect is characterized by the experience of positive feelings across situations, by facets of sociability and social dominance and by energy, venturesomeness and ambition (Clark & Watson,

cited in Strümpfer, et al., 1995). Strümpfer et al., described low Positive Affect as characterized by "low levels of the above" or introversion, but not negative affectivity.

Thus it was anticipated that Negative Affect would predict FOS. The possibility of a relationship between Positive Affect and low FOS was also entertained. It must be remembered that these two dimensions of affect are independent. If a predictive relationship between these variables and FOS was found, this would establish a link between FOS and personality, which would argue for a motivational explanation of FOS.

Furthermore, a link between Self-Efficacy and Negative Affect may exist. Hackett and Betz (1981) observed that anxiety would compound the difficulty of developing efficacy expectations. Anxiety may precipitate internal psychological responses which could decrease perceptions of Self-Efficacy. Although Bandura (1986a) considered anxiety responses a co-effect rather than a cause of low Self-Efficacy, it is possible that anxiety aroused by feelings of inefficacy with regard to specific behaviours/situations, may further decrease both Self-Efficacy and the probability that the behaviour will be performed.

The commonality of Self-Efficacy in explaining behaviour does not exclude other mechanisms in the determination of motivation and achievement. Bandura's (1982) social cognitive theory of psycho-social functioning included multiple determinants of behaviour.

Thus the purpose of the current research was to discover the nature of FOS through the relationship of this construct to the abovementioned variables. The theoretical relationships between these variables and FOS emerged as convincing in the preceding discussion. Hence the anticipation that these variables would predict the occurrence of FOS.

CHAPTER FOUR

METHODOLOGY

The preceding chapters established the issues under consideration and described the variables investigated in the present study. The purpose of the current chapter is to formalize the research question, and to describe the research methodology employed.

The Research Question

The aim of the current study was to re-examine the nature of FOS. An exploratory approach was adopted, whereby the nature of FOS was explored by testing the type of relationship between this construct and a number of other, theoretically related variables. In other words, a description of the nature of FOS was sought in terms of this construct's relationship to other variables. Specifically, the question was whether personality variables or situational variables would predict the occurrence of FOS.

Sample

Subjects were drawn from across the range of working-aged women (18-65 years) and varied widely in terms of occupation. The sample included only white, English-speaking women, with a minimum of matric education. The reason for this was to focus the study, and to avoid introducing extraneous variables associated with cultural differences which could confound the results. For example, socialization

influences attitudes towards the role of women and cultural differences in socialization practices could, therefore, affect attitudes towards female achievement. A number of studies have been conducted which have revealed cultural differences even between English- and Afrikaans-speaking South African samples (Boshoff, Kaplan, Schutte & Kellerman, 1989). Furthermore, most research in this field has been conducted using white English-speaking, albeit American, women as subjects. Consequently, the nature of this sample allows for a degree of comparability between such research and a South African study (Kellerman, 1983).

Convenience sampling was employed to select the sample of white, working women. Although non-probability sampling methods are not ideal, because no empirical basis exists for generalizing results to the wider population, samples of convenience facilitate practical research and are therefore widely used (Bell, 1989). The sampling procedure necessitated that the researcher identify those people who fulfilled the sampling criteria and approach each subject. The researcher was also referred to prospective subjects by people already participating in the study. Thus snowball sampling contributed to the momentum of sampling.

Before sampling was launched, a pilot survey was carried out to ensure that the instructions were clear and that the questions were understood by the participants. The necessity for such a step in the planning and execution of a survey is elaborated upon by Bell (1989). Moreover, a cover letter was attached to each

questionnaire, which explained the purpose of the research and assured participants of the anonymity of their responses.

A total of 350 questionnaires were distributed to women in the greater Cape Town area; 240 useable questionnaires were collected. This yielded a response rate of 69 per cent.

Measures

A questionnaire was compiled for the purpose of carrying out the research in hand. The questionnaire was made up of a few biographical questions and five scales. The scales included were Good and Good's (1973) Fear of Success Scale; Watson, Clark and Tellegen's (1988) Positive and Negative Affect Schedule; Tipton, Everett and Worthington's (1984) Generalized Self-Efficacy Scale; Spence and Helmreich's (1974) short version of the Attitudes Towards Women Scale and Strümpfer's (1975) Autonomous and Social Achievement Values Scale. The scales were ordered so as to vary the format of the questions and thus avoid the effects of response set. The item format of each scale will be described in the ensuing pages.

Biographical Details

The first section of the questionnaire was comprised of questions relating to biographical details. Age was measured across ten categories. The first category included the "20 or younger" age-group, following which categories succeeded each other at five year intervals. The age-range extended from the "20 or younger" group to the "61-65" category, which is the age at which most people retire. The

purpose of measuring age in this way was to overcome the resistance which may have met a request for an exact figure. An unforeseen complication of including ordinal data in the analysis was that, should age emerge as a significant predictor of FOS, tests would have to be run to check the accuracy of the results. The statistical processes involved in regression analysis demand that interval data be utilized for the results to be meaningful. The appropriate test for differences in the mean scores of variables across age groups would have been a one-way analysis of variance (Dobsen, 1990). However, distortion of the results was not anticipated, because the interval between categories was regular, and there were ten categories, which meant that the data approximated an interval scale or continuous data.

Other biographical details requested included a description of the respondent's occupation, qualifications, marital status and number of children. These variables have been linked to FOS in past research, and were included in the questionnaire with the view that they could be of interpretative value.

Fear of Success Scale

Good and Good's (1973) Fear of Success Scale is an objective measure of the motive to avoid success. The scale consists of 29 items which are dichotomously scored as true or false. A response indicative of FOS was awarded a point. The authors of this scale established an internal consistency reliability measure of 0.81 (Kuder Richardson Formula 20), and the mean point-biserial r was 0.40 for 103 male and 125 female undergraduate students.

Shaver (1976) and Griffore (1977) cautioned that researchers should not assume that the "new" objective measures of FOS all measure the same construct or that they necessarily measure the construct described by Horner. Paludi (1984) observed that since the new FOS measures deal with either academic, competitive success or success in general, it should come as no surprise that they have not been found to be related to Horner's projective FOS measure. Good and Good (1973) did not limit the items included in the scale to fear of success in academic situations, thus avoiding one of the limitations of Horner's approach. Rather, the authors developed a global measure which tested the assumption that an individual who fears success is one who is prone to worry about the possibility of antagonizing others, or incurring social censure in situations where his/her performance is superior. However, Reviere and Posey (1978) reported that Good and Good's objective scale was not correlated with Horner's projective measure. Despite the fact that the relationship between FOS as measured by the objective scale and theoretically related constructs, such as anxiety and self-concept, yielded a description more in keeping with the FOS construct as defined by Horner. Good and Good's scale was also one of the few objective scales to measure significant gender differences on FOS. Among other measures in this category, Sadd, Lenauer, Shaver and Dunivant listed Spence (1974) and Zuckerman and Allison's (1976) scales.

Another reason for the choice of Good and Good's (1973) scale was the precedent set by Popp and Muhs's (1982) application of this scale to a sample of working adults. Good and Good's scale was originally validated on a sample of college

students, but was reported to be a valid and reliable measure by Popp and Muhs. The fact that Good and Good's scale has also been reported to be reliable applied in the South African context reinforced this choice (Tenty, 1984; van der Westhuizen, 1986).

Positive and Negative Affect Schedule

The Positive and Negative Affect Schedule (PANAS) was developed by Watson, Clark and Tellegen (1988). This instrument consists of two ten-item mood scales. Each scale is made up of a number of words which describe different feelings and emotions. Respondents were requested to indicate to what extent a particular emotion or feeling was experienced "in general" on a scale from one to five. One indicated "very slightly or not at all" and five indicated an extreme experience. When longer-term instructions have been used, i.e. indicate to what extent you generally feel distressed, as opposed to the extent you feel distressed at this moment, the schedule has exhibited trait-like stability. Short-term instructions are sensitive to fluctuations in mood (Watson et al.). Each scale yielded a separate total for Positive and Negative Affect. The total for each of these dimensions was calculated by summing the scores on each of the ten items making up that scale.

Watson, Clark and Tellegen (1988) claimed that this adjective checklist was "highly internally consistent" and valid. Watson et al. cited normative data, factorial and external evidence of the convergent and discriminant validity of the scales. This brief and easily administered measure was found to correlate with lengthier

scales of the underlying factors, was also found to correlate with measures of related constructs and showed the same pattern of relations with external variables that have been demonstrated in other studies. Watson et al. reported that the Positive and Negative Affect scales are largely uncorrelated and have been demonstrated to be stable at appropriate levels over two months.

Generalized Self-Efficacy Scale

The Generalized Self-Efficacy Scale was devised by Tipton, Everett and Worthington (1984) to measure the "set of beliefs that one can cope effectively in a broad range of situations" (p.547). The Generalized Self-Efficacy Scale consists of 27 items. Subjects were requested to rate the extent to which they agreed with a statement using a scale ranging from one (strongly agree) to seven (strongly disagree). Responses were coded on a scale from nought to six so that a low score indicated low self-efficacy. The total score for the scale was the sum of the coded item scores.

Tipton, Everett and Worthington (1984) claimed that this scale was internally consistent and also reported evidence of the scale's construct validity. Tipton et al conducted two studies to test the validity of the scale, and in both experiments participants with high Self-Efficacy scores expended more effort and persevered longer on tasks. The fact that the criterion tasks were unrelated supported the construct validity of the scale across situations. Lennings (1994) supported the high reliability of Tipton et al's Generalized Self-Efficacy Scale, but claimed that the predictive validity of the scale was low. One of the reasons cited for this was the

possibility that the scale was not inclusive enough to be a measure of generalized Self-Efficacy. Bandura's (cited in Lennings) definition of Self-Efficacy was broader than the construct operationalized by Tipton et al. which measured persistence or endurance behaviours, but not a sense of overall mastery of behaviour and coping skills. Moreover, Self-Efficacy has a high domain specific component. Bandura described how beliefs about outcomes vary across behavioural domains, rather than generalize across situations. Nevertheless, Lennings concluded that Tipton et al.'s scale did "fulfil some objectives as a generalized Self-Efficacy measure".

Attitudes Towards Women Scale

The Attitudes Towards Women Scale was constructed by Spence and Helmreich (1972). This scale was designed to assess beliefs about the appropriate role of women in society. Lunneborg (1974) and Kilpatrick and Smith (1974) reported evidence of the validity of this scale. The scale consists of items which measure the vocational, educational and intellectual roles of women; freedom and independence; dating, courtship and sexual behaviour; marital responsibilities and obligations (Kilpatrick & Smith). Lunneborg (1974) reported that factor analyses of the scores of different groups established that the two most stable factors are equality of opportunity in vocations and education, and social-sexual behaviour.

A short version of this scale was employed in the present study (Spence, Helmreich & Stapp, 1973). The reported correlations between scores on the short and original

version for groups of male and female students, and groups of their parents, were 0.95 or above. The results of a factor analysis and part-whole correlations indicated the similarity of the two forms (Spence, et al., 1973). Parry (1983) described how the short version was derived from the original scale. The validity of the short version of the Attitudes Towards Women Scale has been confirmed by Parry. Smith and Bradley (1980) documented evidence for the construct validity, criterion validity and reliability of both versions of this scale.

The short version of the Attitudes Towards Women Scale consists of 25 items and the response to each statement was recorded on a four-point scale ranging from strongly agree (A) to strongly disagree (D). Responses were coded so that attitudes were rated on a scale of nought to three. The more conservative the attitudes towards the role of women, the more points were awarded. The total score was the sum of points awarded on each item.

Autonomous and Social Achievement Values Scale

Strümpfer (1975) developed the scales to measure Autonomous and Social Achievement Values. This instrument is made up of 48 statements concerning personal attitudes and values. Autonomous Achievement Values are measured on 24 items, Social Achievement Values on 18 items and 6 buffer items are included in the scale. The respondents were requested to state whether a statement was true or false, as it pertained to them. One point was awarded for an item if the response positively measured Autonomous or Social Achievement Values, respectively. Separate total scores were calculated for each variable.

Strümpfer (1975) reported that the Autonomous Achievement Values scale was a valid measure of the desire to attain personal standards of excellence. Scores on this scale correlated positively with indices of achievement behaviour such as academic performance scores on the "achievement via performance" scale of the California Psychological Inventory (Gough, cited in Strümpfer, 1975) and the achievement and endurance scales of the Personality Research Form (Jackson, cited in Strümpfer, 1975). Strümpfer also reported respectable split half and test-retest reliabilities. The Social Achievement Values scale was designed to measure an individual's response to standards set by others. Strümpfer's scale assessed concern over competition, the importance of obtaining social recognition for accomplishments and reliance on social comparison processes for evaluating performance. The validity of this scale was established by the positive correlation of scores with those on the sociability scale of the California Psychological Inventory and the social recognition scale of the Personality Research Form (Strümpfer, cited in Battistich, Thompson, Mann & Perlmutter, 1982). Reliabilities reported by Strümpfer for the Social Achievement Values scale were acceptable but lower than those reported for the Autonomous Achievement Values scale. Strümpfer also claimed that these scales were independent.

Analysis

An exploratory approach to analysing the data was adopted. Tukey (1977) distinguished between confirmatory and exploratory data analysis. He observed that exploratory data analysis, as opposed to confirmatory data analysis, was a

more "flexible" analytical technique. This technique is guided by the nature of the data, fostering new and flexible ways of exploration, which may lead to unexpected outcomes

The statistical analysis was run using BMDP software. A number of different statistical techniques were employed in exploring the relationship between FOS and the variables discussed.

The first step was to establish whether concept redundancy existed among the variables included in the investigation. Factor analysis was adopted as the most appropriate analytical technique (Gorsuch, 1983). Once the empirical distinction between constructs was established, exploration of the relationships between constructs could be undertaken. Rank correlation was employed for this purpose because this technique imposes no assumptions on the data about the nature of the relationship to be ascertained (Howell, 1989). The next step in the process of exploring the relationship of variables to FOS was to determine whether these relationships were predictive. Consequently, multiple step-wise regression analysis was run. Cluster analysis was employed in the final stage of the analysis in order to determine the "natural groupings" within the data set (Janman, Jones, Payne & Rick, 1988).

A discussion of the results is presented in the following chapter. A detailed account of how the results guided the process of analysing the data is integrated into this discussion.

CHAPTER 5

DISCUSSION OF THE RESULTS

*If you want truly to understand something,
try to change it.*

Kurt Lewin

The data analysis evolved in a step-wise fashion. The questions posed at each stage in the process were determined by what had been established about the relationship of FOS to the relevant variables in the preceding step. Thus, the nature of FOS was explored through the process of testing the relationship of this construct to other constructs. The exploratory approach has been described by Tukey (1977) as a "flexible" technique which is guided by the nature of the data - the advantage of which is the generation of new and flexible ways of exploration. Before this exploratory process could be undertaken, however, the possibility of concept redundancy among the variables had to be ruled out.

Concept Redundancy

Factor analyses of the measuring scales were conducted to establish whether concept redundancy existed among the variables included in the investigation. The importance of this methodological step arises from the aim of the research, which was to describe the nature of FOS in terms of this construct's relationship to other variables. Thus, these variables could not share meaning if they were to contribute to clarifying the nature of FOS. Studies have treated these variables as empirically distinct. However,

there was a chance that the constructs shared meaning where the research apropos FOS has not been accompanied by "careful segmentation" of the construct's theoretical domain in terms of the meaning of the construct, and its relationship to other constructs (Morrow, 1985, p.468).

Factor Analysis Across All Items

The first step in the factor analysis across all items was to generate the squared multiple correlation of each item with all other items. It was expected that these correlations would be high because this coefficient incorporated the relationship of a particular item to other items from the same scale. The correlations ranged between .59 and .88, which implied significant relationships among items. On average, 73 per cent of the variance within each item could be explained by all other items.

The relationships among items were explored further by calculating the communalities obtained from the 44 factors retrieved after one iteration. The communality of an item is its squared multiple correlation with the factors. This value revealed how much of the variance within a particular item was explained by the obtained factors. Communalities ranged from between .64 and .82. On average, 73 per cent of the variance within items was explained by the factors. This outcome suggested that identifiable factors of considerable explanatory value were emerging.

In pursuit of the identity of these factors, the eigenvalues of the factors were calculated. This statistic revealed how much variance was explained by each factor. Factors with eigenvalues below one were disregarded as their explanatory value would have been

negligible.³ Accordingly, 44 factors were identified. Altogether, these items explained 73 per cent of the variance shared among the items. That such a large proportion of the variance was explained, confirmed that the most important explanatory factors had been captured. The first factor identified explained 11 per cent of the variance, factors 2 to 15 each contributed less significantly to explain 33 per cent of the variance, and the remaining 29 factors explained only 28 per cent of the variance.

A screeplot of the eigenvalues was plotted to identify those factors which contributed most significantly to explaining the variance. The variance explained by each of the 10 factors identified in the screeplot is listed in Table 1. Varimax rotation was conducted using these 10 factors. The characteristics of the captured factors were determined by analysing those items which loaded at .3 or higher (Cattell, 1966).⁴ These factors are presented in Table 2.

As shown in Table 1, Factor 1 explained 15 per cent of the variance among items. A concentration of high loadings on Positive Affect (PA) items indicated that Factor 1 tapped the meaning of the Positive Affect Scale. The range of loadings among these items varied from .754 to .340. No cross loading of PA items was evident. Factor 1 also appeared to incorporate some of the meaning embodied within the Self-Efficacy (SE) construct. However, no SE loadings above .453 were evident, and some cross loading of these items on other factors contributed to the impression that Factor 1 was predominantly a measure of Positive Affect. The possibility that the PA and SE scales shared some meaning was credible in view of the meaning ascribed to these

³ The same eigenvalue criterion was applied throughout the analysis.
⁴ The preferred cut-off of .3 was specified for the analysis of all factors.

Table 1: The Variance Explained by Factors Identified in the Screeplot

<i>Factor</i>	<i>Variance Explained</i>	<i>Cum.R</i>
1	15.056	.105
2	7.358	.157
3	6.318	.201
4	4.331	.231
5	3.689	.257
6	3.483	.282
7	3.160	.304
8	2.789	.323
9	2.651	.342
10	2.495	.359

Table 2: Item Loadings Across the Factors Identified in the Screeplot

Factor 1		Factor 2		Factor 3		Factor 4	
Item	Loading	Item	Loading	Item	Loading	Item	Loading
PA 100	.754	NA 116	.816	ATW 49	.715	AAV 65	.759
PA 103	.741	NA 114	.785	ATW 68	.681	SAV 87	.681
PA 104	.653	NA 110	.774	ATW 51	.662	AAV 75	.640
PA 98	.610	NA 115	.757	ATW 44	.641	AAV 69	.617
PA 101	.605	NA 108	.646	ATW 39	.563	AAV 77	.520
PA 97	.599	NA 109	.635	ATW 45	.544	AAV 55	.515
PA 106	.517	NA 107	.609	ATW 38	.535	SAV 81	.392
PA 99	.340	NA 113	.569	ATW 52	.525	SE 122	.315
PA 102	.415	SE 127	-.441	ATW 43	.516	AAV 73	.375
PA 105	.428	SE 112	.418	ATW 36	.390		
SE 135	.416	NA 111	.354	PA 102	-.334		
SE 131	.359			ATW 41	.346		
SE 124	.399			ATW 46	.496		
FOS 14	-.310			ATW 42	.376		
FOS 13	-.344						
SE 120	.436						
SE 119	.404						

Factor 5		Factor 6		Factor 7		Factor 8	
Item	Loading	Item	Loading	Item	Loading	Item	Loading
AAV 58	.693	FOS 24	.764	SAV 95	.669	ATW 34	.816
AAV 64	.660	FOS 27	.732	SAV 96	.657	ATW 30	.734
AAV 67	.656	FOS 25	.607	SE 131	.369	ATW 33	.689
AAV 72	.449	FOS 28	.538	FOS 8	.303	ATW 42	.307
AAV 76	.311	FOS 12	.336	SAV 91	.378		
SE 118	.304	FOS 29	.314	SE 124	.400		
AAV 63	.380	FOS 11	.312	SAV 79	.326		
AAV 62	.362						
SE 120	.323						
AAV 61	.398						

Table 2 Continued

Factor 9		Factor 10	
Item	Loading	Item	Loading
SE 136	.784	FOS 4	.738
SE 137	.694	FOS 2	.668
FOS 7	.376	FOS 10	.642
SE 135	.305	FOS 5	.491
SE 133	.301	FOS 21	.352

constructs. Positive Affect has been described as innate positive emotionality (Diener; Diener & Emmons cited in Nelson, 1990), which may be related to the development of a strong sense of personal efficacy. Low negative loadings on two Fear of Success items did not detract from the interpretation of this factor. Thus, some evidence for shared meaning between the Positive Affect and Generalized Self-Efficacy Scales was found in this factor, which is characterized by determination, enthusiasm and belief in self.

Negative Affect (NA) items loaded predominantly on Factor 2. The loadings varied between .816 and .354 with only 2 loadings falling below .5. No cross loading of these items on other factors was apparent. The only other item which loaded on this factor belonged to the Self-Efficacy Scale. This item, which loaded negatively at .441, referred to fear, which is one of the dimensions of NA. Factor 2 explained seven per cent of the variance among items.

Factor 3 contributed to explaining another six per cent of the variance. Thirteen items from the Attitudes Towards Women Scale (ATW) and one PA item loaded on this factor. Only three of the loadings on ATW items were below .5. No cross loading of these items occurred. The only evidence that this factor was not exclusive to the Attitudes Towards Women Scale was the negative loading of .334 on the aforementioned PA item. All other items measured social attitudes apropos the female role in society. An explanation for why one PA item loaded on this factor was not apparent in terms of the theoretical definitions of these constructs. Another dimension of the ATW Scale was embodied in Factor 8. Only ATW items loaded on this factor. Factor 8 tapped expectations about the behaviour of women. This factor explained

three per cent of the variance. Thus it was possible to claim that the ATW construct was empirically distinct from the other variables included in the study.

Although there was some evidence of shared meaning among the Self-Efficacy (SE), Social Achievement Values (SAV) and Autonomous Achievement Values (AAV) constructs, predominantly AAV items loaded on Factor 4. Only one AAV item loaded below .5. A significant loading of .693 on an item from the Social Achievement Values Scale interrupted the cluster of high loadings on AAV items. A much lower loading on another SAV item was also evident in the table of factor loadings. This finding posed some questions concerning Strümpfer's (1975) claim that the two scales are independent. However, these loadings, together with a .315 loading on a SE item, did not detract from the factor's focus on AAV items. Factor 4, which was characterized by a willingness to work and the desire for success could be considered to capture the general meaning of the Autonomous Achievement Values Scale. AAV items also loaded on Factor 5. Where cross loading on these items did occur between Factors 4 and 5, the loadings were insignificant on either one or the other factor. No cross loading was evident on those items on which Factor 5 was most significantly loaded. These findings suggested that Factor 5 was tapping a different dimension of the AAV Scale. The dimension which characterized this factor was the perception of self as hard working and disciplined. Evidence of marginal loadings on two SE items provided negligible evidence for concept redundancy. Although, an individual who strives to achieve the standards of excellence described by AAV (Veroff cited in Strümpfer, 1975) must perceive themselves as efficacious or capable of the task. The meaning captured by Factors 4 and 5 contributed to explaining just over eight per cent

of the variance.

Exclusively, FOS items loaded on Factors 6 and 10. This outcome negated suspicions of concept redundancy. Both factors were clearly interpretable as different dimensions of the FOS construct. No cross loading was evident. The dimension captured by Factor 6 was fear of the negative consequences of success, and the five items which loaded on Factor 10 measured purposeful underachievement. These factors each explained approximately three per cent of the variance.

It appeared as if Factor 7 had captured the underlying meaning of the Social Achievement Values Scale. However, loadings on items from other scales rendered this factor difficult to interpret. Four SAV items loaded on this factor, and these were the only items which loaded higher than .5. Two SE items also loaded on Factor 7. There was evidence, however, that these cross loaded on other factors, and this depreciated their interpretative value. The fact that SAV and SE items loaded on the same factor was not explicable in terms of the meaning ascribed to these constructs in the theory. The FOS item loading on this factor pertained to feelings of anxiety consequent to success, and the inclusion of this item could therefore be explained in terms of the relationship proposed between high SAV and FOS. However, the positive value of the FOS loading made the link between FOS and SE unintelligible. Accordingly, Factor 7 could best be described as measuring the need to be recognised as successful. This factor explained another three per cent of the variance.

Four SE items, as opposed to only one FOS item, loaded on Factor 9. The focus of the factor was clearly established by the significant SE loadings. The FOS item loaded

negatively at .376. The negative value attached to the FOS item meant that the inclusion of this item could be explained in terms of the relationship described between feelings of inefficacy and FOS. It was noted that it is primarily perceived inefficacy in coping with potentially aversive events that gives rise to both fearful expectations and avoidance behaviour (Bandura, 1977; 1986). In consideration of the evidence that Factor 9 loaded predominantly on SE items, this factor was interpreted as having captured the underlying meaning of the Generalized Self-Efficacy Scale. Factor 9 explained approximately three per cent of the variance. This factor embodied the determination and belief in competence characteristic of Self-Efficacy.

The results of the factor analysis across items rendered the premiss of concept redundancy among the constructs as groundless. Thus the utility of these constructs as distinct measures was established. In order to verify this conclusion, confirmatory factor analysis was undertaken.

Confirmatory Factor Analysis Within Scales

The legitimacy of the constructs distinguished in the analysis of factors across all items was confirmed by conducting an analysis of factors within each scale. This exercise served to establish that the meaning attributed to the various factors identified in the initial factor analysis could be retrieved from within particular scales.

Factor Analysis of the Fear of Success Scale

The nine factors yielded by an analysis of the Fear of Success Scale explained 59 per cent of the variance shared among the items. Consequently, it was possible to

conclude that the most important explanatory factors had been identified. The variance explained by each of these factors is presented in Table 3. All items loaded across the factors captured. Although the cross loading of items made the accurate interpretation of these factors difficult, it was possible to discern the general meaning of factors. The cross-loading of items on factors could also be interpreted as confirmation of the close relationship between items constituting the FOS scale. The item loadings across factors are displayed in Table 4. These factors described being afraid of the negative consequences of success; underachievement; the perception that others disapprove of success; the perception that it is wrong to be too involved in work; concern that dedication and achievement interfere with interpersonal relationships; the perception that others see achievement as negative and the concern that relationships must be sacrificed in order to achieve. Thus the meaning embodied in these factors reflected the meaning of Factors 6 and 10, which were identified in the factor analysis across items as those factors underlying the Fear of Success Scale.

Factor Analysis of the Positive Affect Scale

The two factors captured within the Positive Affect Scale are presented in Table 5. All items loaded on these factors. Prevalent cross loading was evident between the two factors discerned. It was possible, however, to identify the focus of each factor. Item loadings on factors are displayed in Table 6. The first factor focused on the positive feelings of enthusiasm, inspiration and excitement. Factor 2 loaded most significantly on those items describing the attributes of attentiveness and strength. These factors accounted for 52 per cent of the variance among items. Considering these results, it was apparent that the nature of these factors corresponded with the

**Table 3: The Variance Explained by Factors Captured in the
Fear of Success Scale**

<i>Factor</i>	<i>Variance Explained</i>	<i>Cum R</i>
1	4.966	0.171
2	2.330	0.252
3	1.980	0.320
4	1.691	0.378
5	1.406	0.427
6	1.269	0.470
7	1.226	0.513
8	1.090	0.550
9	1.027	0.586

Table 4: Item Loadings Across the Factors Captured in the Fear of Success Scale

Factor 1		Factor 2		Factor 3	
Item	Loading	Item	Loading	Item	Loading
FOS 27	0.735	FOS 25	0.381	FOS 04	0.714
FOS 28	0.670	FOS 14	0.741	FOS 10	0.704
FOS 24	0.666	FOS 13	0.736	FOS 02	0.694
FOS 25	0.621	FOS 11	0.346	FOS 05	0.579
FOS 11	0.378	FOS 15	0.439	FOS 21	0.338
FOS 12	0.300	FOS 07	0.495	FOS 01	0.258
FOS 29	0.425	FOS 12	0.490		
Factor 4		Factor 5		Factor 6	
Item	Loading	Item	Loading	Item	Loading
FOS 05	0.332	FOS 28	0.278	FOS 01	0.708
FOS 19	0.723	FOS 10	0.357	FOS 08	0.595
FOS 21	0.591	FOS 16	0.738	FOS 17	0.500
FOS 26	0.582	FOS 09	0.730	FOS 7	0.310
FOS 09	0.277	FOS 12	0.276		
FOS 08	0.338				
FOS 17	0.416				
FOS 19	0.316				
FOS 29	0.326				
Factor 7		Factor 8		Factor 9	
Item	Loading	Item	Loading	Item	Loading
FOS 22	0.816	FOS 06	0.809	FOS 18	0.716
FOS 23	0.800	FOS 03	0.747	FOS 20	0.614
				FOS 11	0.351
				FOS 15	0.279

**Table 5: The Variance Explained by Factors Captured in
Positive Affect Scale**

<i>Factor</i>	<i>Variance Explained</i>	<i>Cum.R</i>
1	4.142	0.414
2	1.034	0.518

**Table 6: Item Loadings Across the Factors Captured in the
Positive Affect Scale**

<i>Factor 1</i>		<i>Factor 2</i>	
<i>Item</i>	<i>Loading</i>	<i>Item</i>	<i>Loading</i>
PA 78	0.769	PA 103	0.319
PA 103	0.728	PA 100	0.454
PA 100	0.662	PA 101	0.319
PA 101	0.575	PA 106	0.304
PA 99	0.550	PA 102	0.813
PA 106	0.513	PA 105	0.732
PA 104	0.499	PA 104	0.568
PA 97	0.380	PA 97	0.568

meaning captured within that factor identified in the first stage of the analysis as measuring Positive Affect.

Factor Analysis of the Negative Affect Scale

The meaning of the NA factor distinguished in the analysis of factors across items was retrieved from within the Negative Affect Scale. The cross loading of items made the interpretation of the two factors discerned within the scale difficult. The item loadings across these two factors are presented in Table 7. All items loaded. Factor 1 described fear induced feelings, while Factor 2 described negative emotions such as hostility and irritability. Together, these factors explained 57 per cent of the variance within the Negative Affect Scale. The percentage of the variance explained by each factor is listed in Table 8.

Factor Analysis of the Social Achievement Values Scale

The six factors retrieved from within the Social Achievement Values Scale explained 54 per cent of the variance. A breakdown of how much each factor contributed to explaining the variance is presented in Table 9. All items loaded. It was possible to establish that the meaning captured by that factor identified in the initial stage of the analysis as measuring SAV was shared among these factors; even though the interpretation of factors was complicated by cross loading. The pattern of item loadings

**Table 7: Item Loadings Across the Factors Captured in the
Negative Affect Scale**

<i>Factor 1</i>		<i>Factor 2</i>	
<i>Item</i>	<i>Loading</i>	<i>Item</i>	<i>Loading</i>
NA116	0.858	NA 115	0.267
NA 114	0.816	NA 109	0.429
NA 110	0.808	NA 113	0.351
NA 115	0.730	NA 112	0.816
NA 109	0.534	NA 108	0.679
NA 113	0.583	NA 111	0.600
NA 108	0.407	NA 107	0.442
NA 107	0.460		

**Table 8: The Variance Explained by Factors Captured in the
Negative Affect Scale**

<i>Factor</i>	<i>Variance Explained</i>	<i>Cum.R</i>
1	4.605	0.461
2	1.079	0.569

**Table 9: The Variance Explained by Factors Captured in the
 Social Achievement Values Scale**

<i>Factor</i>	<i>Variance Explained</i>	<i>Cum R.</i>
1	3.335	0.186
2	1.537	0.271
3	1.397	0.348
4	1.277	0.419
5	1.118	0.481
6	1.021	0.538

across factors is displayed in Table 10. The factors yielded focused on the need for recognition. In particular, the desire to be recognised for accomplishing difficult tasks; the need for fame and success; the need to be comparatively more successful than others and the willingness to compete against others for recognition. Thus the legitimacy of the factor identified in the factor analysis across all items was confirmed by establishing its correspondence with the original operational definition of the construct by Strümpfer (1975).

Factor Analysis of the Autonomous Achievement Values Scale

All items loaded and thus contributed to the variance explained by the factors retrieved from within the Autonomous Achievement Values Scale. Item loadings are presented in Table 11. The two factors identified in the analysis of factors across all items incorporated the seven dimensions of achievement retrieved from within the Autonomous Achievement Values Scale. The meaning shared between these two sets of factors included the willingness to work hard; to be disciplined about work; to work at being a success; the willingness to do more than may be necessary in order to ensure success; the willingness to organize life around work; to enjoy hard work and to be conscientious. The explanatory value of the factors retrieved was established by the finding that these factors accounted for 57 per cent of the variance within the scale. The variance explained by each of the factors listed above is displayed in Table 12.

Factor Analysis of the Attitudes Towards Women Scale

All items loaded on the seven factors captured within the Attitude Towards Women

Table 10: Item Loadings Across the Factors Captured in the Social Achievement Values Scale

Factor 1		Factor 2		Factor 3	
Item	Loading	Item	Loading	Item	Loading
SAV 87	0.678	SAV 95	0.765	SAV 94	0.323
SAV 84	0.647	SAV 96	0.761	SAV 93	0.737
SAV 81	0.646	SAV 91	0.372	SAV 91	0.661
SAV 94	0.517	SAV 85	0.336	SAV 90	0.407
		SAV 92	0.301		
		SAV 79	0.457		
Factor 4		Factor 5		Factor 6	
Item	Loading	Item	Loading	Item	Loading
SAV 83	0.561	SAV 86	0.771	SAV 81	0.345
SAV 88	0.550	SAV 80	0.692	SAV 92	0.677
SAV 82	-0.534	SAV 99	0.409	SAV 89	0.517
SAV 85	0.515	SAV 90	0.381	SAV 79	0.344

Table 11: Item Loadings Across the Factors Captured in the Autonomous Achievement Values Scale

Factor 1		Factor 2		Factor 3	
Item	Loading	Item	Loading	Item	Loading
AAV 65	0.788	AAV 58	0.769	AAV 56	0.734
AAV 71	0.755	AAV 64	0.677	AAV 63	0.582
AAV 75	0.680	AAV 67	0.575	AAV 73	0.524
AAV 69	0.565	AAV 63	0.297	AAV 60	0.305
AAV 77	0.561	AAV 61	0.276	AAV 61	-0.406
AAV 55	0.524	AAV 74	0.261	AAV 72	0.393
AAV 63	0.252	AAV 62	0.487		
AAV 73	0.416	AAV 76	0.385		
AAV 62	0.269	AAV 72	0.448		
Factor 4		Factor 5		Factor 6	
Item	Loading	Item	Loading	Item	Loading
AAV 69	0.340	AAV 67	0.411	AAV 67	0.296
AAV 66	0.700	AAV 73	0.306	AAV 73	0.271
AAV 78	0.692	AAV 66	0.259	AAV 66	0.275
AAV 74	0.448	AAV 59	0.733	AAV 60	0.678
AAV 62	0.351	AAV 57	0.544	AAV 68	0.681
AAV 76	0.278	AAV 61	0.354	AAV 61	0.505
		AAV 76	0.408		
		AAV 72	0.320		
Factor 7					
Item	Loading				
AAV 70	0.710				
AAV 74	-0.568				

**Table 12: The Variance Explained by Factors Captured in the
Autonomous Achievement Values Scale**

<i>Factor</i>	<i>Variance Explained</i>	<i>Cum.R.</i>
1	5.515	0.230
2	1.983	0.312
3	1.551	0.377
4	1.277	0.430
5	1.185	0.480
6	1.151	0.528
7	1.054	0.572

Scale. These factors explained 57 per cent of the variance within the scale. Thus it was apparent that these factors captured the general meaning embodied within the original scale. The contribution of each factor to explaining the variance is listed in Table 13. However, the meaning of each factor was difficult to interpret due to the cross loading of items. Item loadings across factors are displayed in Table 14. These factors described such issues as women's role in society; the perception that men are more capable than women; how female behaviour is constrained by the feminine role society has created, and the influence of gender-role stereotypes. The meaning embodied in these factors was shared by Factors 3 and 8, which were identified in the initial factor analysis as those factors underlying the Attitudes Towards Women Scale. Consequently, the legitimacy of the Attitude Towards Women construct was established.

Factor Analysis of the Generalized Self-Efficacy Scale

Determination and belief in ability summarized the meaning inherent in that factor identified in the first stage of the analysis as measuring Self-Efficacy. This meaning was reflected in the nine factors captured within the scale. All items loaded across the factors. Interpretation of the factors was hampered by the cross loading of items. The item loadings are presented in Table 15. These factors described the belief that perseverance would result in success; the willingness to experience hardship and discomfort in the pursuit of success and confidence in the ability to succeed. These factors explained 64 per cent of the variance within the original scale. The percentage of the variance explained by each of the nine factors is listed in Table 16.

**Table 13: The Variance Explained by Factors Captured in the
Attitudes Towards Women Scale**

<i>Factor</i>	<i>Variance Explained</i>	<i>Cum.R.</i>
1	6.131	0.245
2	1.978	0.324
3	1.534	0.386
4	1.343	0.439
5	1.196	0.487
6	1.099	0.531
7	1.008	0.572

**Table 14: Item Loadings Across the Factors Captured in the Attitudes
Towards Women Scale**

<i>Factor 1</i>		<i>Factor 2</i>		<i>Factor 3</i>	
<i>Item</i>	<i>Loading</i>	<i>Item</i>	<i>Loading</i>	<i>Item</i>	<i>Loading</i>
ATW 48	0.732	ATW 49	0.506	ATW 34	0.824
ATW 39	0.688	ATW 43	0.659	ATW 30	0.774
ATW 49	0.545	ATW 51	0.633	ATW 33	0.745
ATW 45	0.521	ATW 52	0.613	ATW 38	0.260
ATW 46	0.520	ATW 37	0.596	ATW 42	0.447
ATW 51	0.317	ATW 38	0.271	ATW 44	0.285
ATW 36	0.457	ATW 41	0.265		
ATW 38	0.267	ATW 44	0.453		
ATW 54	0.256	ATW 32	0.395		
ATW 42	0.368	ATW 31	0.370		
ATW 41	0.306				
ATW 44	0.304				
<i>Factor 4</i>		<i>Factor 5</i>		<i>Factor 6</i>	
<i>Item</i>	<i>Loading</i>	<i>Item</i>	<i>Loading</i>	<i>Item</i>	<i>Loading</i>
ATW 37	0.342	ATW 35	0.700	ATW 46	-0.361
ATW 50	0.707	ATW 54	0.658	ATW 47	0.761
ATW 36	0.600	ATW 41	0.477	ATW 41	0.443
ATW 38	0.581	ATW 53	0.419	ATW 44	-0.294
ATW 44	0.272	ATW 32	0.307	ATW 32	0.283
ATW 53	0.481	ATW 31	0.429		

Table 14 Continued

<i>Factor 7</i>	
<i>Item</i>	<i>Loading</i>
ATW 46	0.291
ATW 37	-0.278
ATW 40	0.802
ATW 42	-0.337

Table 15: Item Loadings Across the Factors Captured in the Self-Efficacy Scale

<i>Factor 1</i>		<i>Factor 2</i>		<i>Factor 3</i>	
<i>Item</i>	<i>Loading</i>	<i>Item</i>	<i>Loading</i>	<i>Item</i>	<i>Loading</i>
SE 120	0.781	SE 128	0.763	SE 129	0.733
SE 124	0.740	SE 127	0.700	SE 134	0.634
SE 119	0.710	SE 126	0.592	SE 131	0.612
SE 140	0.652	SE 121	0.526	SE 130	0.575
SE 121	0.424	SE 137	0.268	SE 132	0.449
SE 131	0.387	SE 118	0.281	SE 135	0.471
SE 130	0.434	SE 122	0.456	SE 133	0.257
SE 135	0.391				
SE 122	0.360				
SE 133	0.468				

<i>Factor 4</i>		<i>Factor 5</i>		<i>Factor 6</i>	
<i>Item</i>	<i>Loading</i>	<i>Item</i>	<i>Loading</i>	<i>Item</i>	<i>Loading</i>
SE 136	0.818	SE 126	0.370	SE 126	0.254
SE 137	0.783	SE 121	-0.258	SE 138	0.689
SE 123	0.250	SE 142	0.816	SE 125	0.682
SE 135	0.301	SE 141	0.643	SE 118	0.656
SE 133	0.456	SE 143	0.316		

Table 15 Continued

<i>Factor 7</i>		<i>Factor 8</i>		<i>Factor 9</i>	
<i>Item</i>	<i>Loading</i>	<i>Item</i>	<i>Loading</i>	<i>Item</i>	<i>Loading</i>
SE 131	0.308	SE 140	0.356	SE 141	0.352
SE 123	0.715	SE 134	0.275	SE 125	0.268
SE 143	0.672	SE 118	0.345	SE 117	0.841
SE 122	0.419	SE 139	0.688		
		SE 132	0.610		
		SE 122	0.365		

Table 16: The Variance Explained by Factors Captured in the Self-Efficacy Scale

<i>Factor</i>	<i>Variance Explained</i>	<i>Cum.R</i>
1	6.116	0.227
2	2.334	0.313
3	1.641	0.374
4	1.530	0.430
5	1.306	0.479
6	1.238	0.525
7	1.122	0.566
8	1.066	0.606
9	1.008	0.643

The concurrence of meaning between the factors identified as measuring particular constructs in the factor analysis across items, and the meaning embodied in the factors retrieved from within particular scales was established. Thus the empirical distinction between constructs was confirmed, which was a demonstration of the utility of these constructs. These constructs were consequently employed in clarifying the nature of the FOS construct.

Back to the Beginning

Now, at the point where analysis of the nature of FOS could begin, custom had to be observed by reporting statistics descriptive of the sample. Basic statistics, as well as the reliability of the scales are reported in Table 17.

The reliability of each scale utilised in the study was assessed. All scales, with the exception of the Social Achievement Values Scale (Strümpfer, 1975), yielded a Cronbach Alpha of above .7. However, even the measure of reliability calculated for the Social Achievement Values Scale was acceptable at .69 (Ghiselli, Campbell & Zedick, 1981). Thus, the scales used in this study proved reliable, and the results could consequently be interpreted with confidence in the instrumentation.

Exploring the Relationship of Variables to Fear of Success

The plan was to determine the nature of FOS through establishing the relationship of this construct to the other variables included in the analysis. To be specific, it was anticipated that these variables would predict FOS. Before regression analysis was run, however, it was decided to explore the relationships between variables

Table 17: Basic Descriptive Statistics

<i>Variable</i>	<i>Cronbach Alpha</i>	\bar{X}	<i>s</i>
Fear of Success	0.79	7.09	4.26
Attitudes Towards Women	0.86	18.54	4.49
Autonomous Achievement Values	0.83	17.70	4.49
Social Achievement Values	0.69	11.35	3.13
Positive Affect	0.83	38.28	5.66
Negative Affect	0.86	20.80	7.01
Self-Efficacy	0.82	105.07	17.25
Age		3.66	2.02

through rank correlation. This exploratory technique reveals whether variables "move together"⁵ in any particular direction, without imposing any assumptions on the data about the nature of the relationship to be ascertained. Thus, it was possible to determine whether relationships existed between these variables before specific analyses were run to test for a particular type of relationship. Moreover, an opportunity was afforded to investigate the possibility of interrelationships between constructs which emerged in the discussion of the variables in Chapter Three.

The Spearman and Kendall rank order correlation coefficients measure systematic monotonic relationship by circumventing the restrictions of a parametric statistical technique. Both Spearman's rho and Kendall's tau are techniques for calculating standardized coefficients of correlation based on the amount of agreement between two sets of ordinal rankings. In other words, rank correlation coefficients estimate the association between variables based on the ranks of observations. The absolute value of variables is overlooked in favour of measuring the extent to which variables move in the same direction. The requirement that the variables be at least ordinal in scale and numeric in type meant that the inclusion of the age variable into the analysis was not problematic (Nie, Hull, Jenkins, Steinbrenner & Brent, 1975). Nie, et al. noted that each of these procedures has a correction for tied ranks and there is no rule of selecting one over the other. In reality, the basic concepts underlying these two techniques are quite similar, as are usually the coefficients when both statistics are computed using same data. The two correlations are equally powerful but "scaled"

⁵ Howell (1989) described systematic co-movement or monotonic relationship between variables as represented by a regression line that is continually increasing or decreasing, but perhaps not in a straight line.

differently (Howell, 1987).

The correlation matrices generated by the calculation of Kendall's and Spearman's coefficients are presented in Tables 18 and 19, respectively.

The significance of the correlation coefficients was determined by referring to the Bonferroni table of critical values. The correlation coefficients calculated involved making multiple simultaneous comparisons. In this situation stating a confidence limit for each comparison is meaningless, because even when none of the effects are due to the factors investigated, a certain percentage of all comparisons would mistakenly be declared significant. The Bonferroni adjustment or errorwise estimate is calculated by dividing the error rate by the number of comparisons made so that the chance of mistakenly declaring an effect significant, is reduced. Comparisons are only declared significant when this higher measure of significance is attained (Steyn, Smit & du Toit, 1987).

It was unnecessary to state the degrees of freedom because comparisons were made by normal approximation which does not necessitate restricting the degrees of freedom.

Correlations Descriptive of the Nature of FOS

As noted Kendall and Spearman's coefficients should not be compared. The direction or positive/negative value of relationships among the constructs were the same in both matrices and the value of the coefficients generally of the same order. Kendall's rank correlation coefficient, however, tends to yield a more conservative estimate of the

Table 18: Kendall's Rank Correlation Coefficients

	AGE	FOS	ATW	AAV	SAV	PA	NA	SE
AGE								
FOS	-0.09							
ATW	-0.08	0.07						
AAV	0.90	-0.17	-0.04					
SAV	-0.90	-0.02	-0.13	0.17				
PA	0.06	-0.16	-0.04	0.28"	0.25"			
NA	-0.07	0.24'	0.10	-0.14	-0.03	-0.12		
SE	0.04	-0.22'	-0.10	0.38"	0.27"	0.44"	-0.24'	

' p < .05

" p < .01

Table 19: Spearman's Rank Correlation Coefficients

	AGE	FOS	ATW	AAV	SAV	PA	NA	SE
AGE								
FOS	-0.12							
ATW	-0.10	0.10						
AAV	0.12	-0.24'	-0.06					
SAV	-0.12	-0.03	-0.19	0.24'				
PA	0.09	-0.22'	-0.06	0.39"	0.34"			
NA	-0.10	0.33"	0.14	-0.20	-0.04	-0.17		
SE	0.05	-0.32"	-0.15	0.53"	0.37"	0.59"	-0.35"	

' p < .05

" p < .01

relationship between constructs. Consequently, these coefficients were discussed together.

Within the matrix of Kendall's coefficients only NA ($p < .05$) and SE ($p < .05$) were significantly related to FOS. Spearman's coefficients measuring co-movement between FOS and NA ($p < .01$) and between FOS and SE ($p < .01$) were estimated to be significant at a higher level. Within Spearman's matrix AAV ($p < .05$) and PA ($p < .05$) also emerged as significantly related to FOS.

The highest correlation was between NA and FOS. Karabenick, Marshall and Karabenick (1976), reported finding a relationship between FOS and Negative Affect. These researchers commented that affect ratings, like the TAT which was originally used to measure FOS, were a measure of negative thoughts and feelings about the consequences of success. Tellegen reported that Negative Affect was related to the affective trait dimension of negative emotionality (cited in Watson, Clark & Tellegen, 1990), which corresponds to the dominant personality factor of anxiety or neuroticism (Barrick & Mount, 1991; Digman, 1990; Goldberg, 1990). Thus, the occurrence of FOS was linked to a personality characteristic. It is possible that this personality trait may predispose women to fear success. However, Tellegen also linked NA to the psychobiological and psychodynamic constructs of sensitivity to signals of reward and punishment. This finding could mean that neurotic personalities are more sensitive to social pressure to conform to traditional gender-role behaviour, and consequently fear the consequences of contravention more acutely. This situation would reinforce that neuroticism.

The correlation between SE and FOS was also highly significant. It was noted in the review of the literature that an individual experiencing feelings of inefficacy may, in certain circumstances, exhibit behaviour similar to that of an individual suffering from FOS. Self-efficacy theory, as conceptualized by Bandura (1982,1986a,1986c) posited that it is primarily perceived inefficacy in coping with potentially aversive events that gives rise to fearful expectations and avoidance behaviour. The Self-Efficacy construct is central to achievement motivation and decision making theory (Atkinson & Horan, cited in Hackett & Betz, 1981). The relation of the Self-Efficacy to the concept of subjective probability of success has been described by Cervone and Peake and Kirsch (cited in Grubbs, Hardin, Weinreich, Garrison, Pesut & Hardin, 1993). Research supportive of the fact that people who believe they are inefficacious suffer anxiety, and tend to avoid activities they believe exceed their coping ability, has been cited in Beck, Emery and Greenberg (cited in Ozer & Bandura, 1990); Betz and Hackett (1986); Lazarus and Folkman (1984); Meichenbaum (1977) and Ozer and Bandura (1990).

Betz and Hackett (1981) established the explanatory value of the Self-Efficacy construct in understanding female career development. Their causal model of career development documented the different ways in which situational factors such as socialization practices contribute to the type of competencies and self-beliefs cultivated. Betz and Hackett (1981, p. 401) observed that, "The [gender]-role socialization of females is less likely than that of males to facilitate the development of strong career-related self-efficacy expectations". Females are either not encouraged or actively discouraged from engaging in activities which would cultivate expectations

of personal efficacy (Maccoby & Jacklin; Sherman, cited in Betz & Hackett). Bandura (1986c) observed that an individual's sense of personal efficacy is an important determinant of personality. The results supported Betz and Hackett's proposition that the underrepresentation of women in many professions may be perpetuated by females' divergent perceptions of capability with regard to the traditional versus non-traditional or male-dominated occupations. Thus, the occurrence of FOS was again related to a dimension of personality.

The negative correlation between AAV and FOS appeared to confirm the relationship proposed between these constructs in the literature review. Veroff (cited in Strümpfer, 1975) described Autonomous Achievement as the desire to achieve internalized, personal standards of excellence. Some of the dimensions on which Strümpfer (1975) measured this construct included concern for doing one's best and reliance on internalized standards for evaluating performance. It follows that someone who feared success, and purposefully underachieved in order to avoid the consequences of social censure could not foster Autonomous Achievement Values.

The negative correlation between PA and FOS measured a relationship between "low" PA and FOS. Whereas Tellegen (cited in Watson, Clark & Tellegen, 1988) reported that PA corresponded to the trait of positive emotionality or extraversion, Watson and Clark (cited in Strümpfer, et al., 1995) described low PA as a state of introversion. Low PA has been characterized as the opposite of Positive Affect, but not negative affectivity, i.e., this state is associated with low levels of positiveness, sociability, social dominance, venturesomeness and ambition. This state may predispose women to fear success, and in turn may be reinforced by the anxiety induced by fear of the negative

consequences of success.

These correlations indicated that the occurrence of FOS was strongly related to personality constructs. The strongest correlations existed between FOS and SE and between FOS and NA. Although the influence of social information on the development of SE was noted (Bandura, cited in Betz & Hackett, 1981), self-beliefs about competency are inculcated through socialization and become stable characteristics of the individual (Bandura, 1986c). NA has been recognised as one of the "Big-Five" dimensions of personality (Barrick & Mount, 1991; Digman, 1990; Goldberg, 1990). AAV and PA were also correlated with FOS (only Spearman's estimate of correlation reached significance). Social information would not appear to influence AAV. Strümpfer (1975) observed that Autonomous Achievement behaviour develops first so that a child's early feelings of competence do not involve social competition. PA is also posited to be an innate characteristic, although Tellegen et al (cited in Strümpfer et al., 1995) claimed that this construct seemed to "contain a larger component of environmental development" than NA. The association of FOS with these constructs did not, however, mean that FOS itself is a personality characteristic.

Exploring Interrelationships between the Constructs

The interrelationships between variables were interesting from the point of view that analysing these relationships could contribute to a better understanding of the meaning inherent within each construct, by clarifying what the constructs meant in terms of each other. These interrelationships were of particular interest where the Fear of Success was related to the variables studied. However, detailed analysis of these

interrelationships was beyond the scope of the study.

Both FOS and SE correlated significantly with NA. Kendall's coefficient of correlation between SE and NA was significant ($p < .05$). Spearman's estimate was significant at a higher level ($p < .01$). These correlations were negative. This finding indicated that negative emotionality (Tellegen, cited in Watson, et al., 1988) was related to feelings of inefficacy or inability to organize and execute the action necessary to perform various tasks (Bandura, 1982). This correlation between SE and NA was confirmation for Hackett and Betz's (1981) observation that anxiety may precipitate internal psychological reactions which depress the development of perceptions of SE. A reciprocal relationship may exist between these variables where the perception of self as inefficacious may foster negative feelings. Although, NA was reported to have a strong genetic component (Tellegen, cited in Strümpfer, et al., 1995).

SE was also correlated with AAV, SAV, and PA. These coefficients were much higher than the estimates of correlation between FOS, NA and SE. Both Spearman's and Kendall's estimates of correlation were significant at the highest level ($p < .01$). The relationship of SE to these constructs emerged in the factor analysis across items conducted in first stages of the analysis. Items from the SE scale were found to load onto the factors underlying the AAV, SAV and PA scales.

The strongest correlation existed between PA and SE. This relationship between positive emotionality and Self-Efficacy is explicable in terms of the characteristics ascribed to these constructs. Positive feelings across situations, feelings of sociability, energy and ambition would reinforce a personal sense of efficacy, and may, in turn, be

sustained by self-belief. Although PA is described as an innate characteristic, Tellegen et al., (cited in Strümpfer et al., 1995) stated that PA contained a component of "environmental development".

The AAV construct describes the desire to achieve internalized, personal standards of excellence (Veroff cited in Strümpfer, 1975). To the extent that an individual is concerned with doing their best, and is prepared to work hard to get ahead (Strümpfer, 1975) they must believe in their mastery of the actions necessary to succeed and in their coping skills (Bandura, 1986c). It is also possible that achieving this success would reinforce personal efficacy. According to Bandura, mastery experiences or enactive performance is the most powerful source of efficacy information (Bandura, 1986b; Hacket & Betz, 1981).

Strümpfer (1975) listed the dimensions measuring SAV as concern over competition, concern with obtaining social recognition for accomplishments and reliance on social processes for evaluating performance. Thus, the correlation between SAV and SE could possibly be explained in terms of reliance on recognition for and approval of accomplishments to reinforce Self-Efficacy. Bandura (cited in Grubbs, Hardin, Weinrich, Weinrich, Garrison, Pesut & Hardin, 1993) and Bandura and Adams (cited in Betz & Hackett, 1981) listed approval or encouragement of the relevant behaviours as enhancing Self-Efficacy expectations.

AAV was also found to be significantly related to PA. Both Kendall and Spearman's estimates of correlation were highly significant ($p < .01$). This relationship could be explained in terms of the extent to which an individual has enough energy,

venturesomeness and ambition (Clark & Watson, cited in Strümpfer, et al., 1995) to set their own standards of excellence (Strümpfer, 1975), then the realization of these desires would reinforce feelings of Positive Affect (Tellegen et al., cited in Strümpfer et al., 1995).

The less conservative estimate of correlation generated by Spearman's technique yielded a significant correlation for SAV and AAV ($p < .05$). Kendall's coefficient did not reach significance. Some evidence of shared meaning between these two scales was evident in the results of the factor analysis conducted across items. According to the theory, however, these constructs are distinctly independent dimensions of achievement (Strümpfer, 1975). Therefore, the nature of this relationship could not be explained in terms of the meaning attributed to the constructs.

A significant correlation between PA and SAV was apparent. Both Kendall and Spearman's estimates of correlation were significant ($p < .01$). This finding indicated a relationship between the state of "high energy, full concentration and pleasurable engagement" which describes high PA (Watson, Clark & Tellegen, 1988), and the desire for social recognition and reliance on social comparison for evaluating performance, which are the primary characteristics of SAV (Strümpfer, 1975). How PA explains SAV is not clear in terms of the theory. A possible interpretation of the relationship may be that, to the extent that an individual receives the social recognition they desire, this may contribute to positive emotionality. As noted, Tellegen et al. (cited by Strümpfer, 1975), reported that PA was influenced by environmental factors.

Some of the interrelationships identified confirmed relationships which were reported

in the discussion of the variables in Chapter Three. Other relationships which had emerged in the factor analysis across items were also retrieved; items from certain scales loaded onto factors which embodied the meaning inherent within other constructs. The results of the correlation analysis and the factor analysis are not, however, directly comparable. The very fact that the independence of these constructs was established in factor analysis made these correlations meaningful. Thus, the correlation analysis contributed to clarifying the relationships between constructs, but what these interrelationships meant in terms of FOS only became clear at a later stage of the analysis, when the results of the cluster analysis were analysed.

Predicting Fear of Success

Regression analysis was employed to test the proposition that the variables related to FOS may predict its occurrence. This technique is a measure of linear relationship which is interpreted as indicative of predictive relationships. Step-wise multiple regression was used in the analysis. Kerlinger (1973) observed that when a multiplicity of variables influence the occurrence of the phenomenon under scrutiny, multivariate methods prove useful in studying multiple influences of several independent variables. Multivariate methods mirror the complexity of behavioural reality.

Multicollinearity

The possibility of collinearity between predictor variables had to be excluded before the regression analysis was run. Multicollinearity is defined as the degree of correlation among predictor variables. When predictor variables are highly correlated with each other, the regression equation is very unstable from one sample to another, i.e. two

random samples from the same population might produce regression equations that appear to be totally different from one another (Howell, 1989).

A tolerance statistic was automatically generated by the BMDP program. This statistic is a measure of the correlation between variables entered into the equation with variables already included in the regression equation. As the tolerance level approaches 0, computations lose numerical accuracy (Hays, 1988). Only two variables were found to predict FOS. In the second step of the analysis, when NA and SE were both included, the level of tolerance did not drop below .87. Consequently, it could be concluded that the predictor variables were not too highly correlated.

Variables which Predict Fear of Success

Step-wise regression is a "forward stepping" solution procedure. The first variable entered into the equation was that which maximized the coefficient of determination R^2 and the F ratio, and minimized the residual, i.e. the variable which had the biggest F-to-enter, provided that this value was greater than the default minimum of 4, was selected as the best predictor variable. The next best predictor was then included in a step-wise fashion until the inclusion of further variables no longer contributed to the predictive value of the equation. Predictor variables were significant by virtue of their inclusion into the equation ($p < .05$) (Afifi & Clark, 1990). A summary of the results of the step-wise multiple regression is presented in Table 20.

The SE and NA constructs were selected as the best predictors of FOS. Together, the variance in these two constructs best explained the variance observed in the

Table 20: Summary of the Results for Step-Wise Multiple Regression

<i>Step</i>	<i>Variable</i>	<i>Multiple R</i>	<i>Multiple R²</i>	<i>Change in R²</i>
1	SE	0.359	0.129	0.129
2	NA	0.425	0.181	0.051

measurement of FOS. The coefficient of determination yielded by the analysis revealed that SE and NA explained 18 per cent of the variance in FOS scores. Considerably more of the variance explained was attributable to SE, which accounted for 13 per cent of the variance in the criterion variable. NA explained five per cent of the variance. Research by Barrick and Mount (1991) and Digman (1990) identified the disposition of negative emotionality or "neuroticism" as one of the important dimensions of personality. NA was reported by Tellegen (cited in Strümpfer, 1975) to have a strong genetic component. Although, situational factors such as gender-role socialization have been linked to the occurrence of NA. Ingram, Cruet, Johnston and Wisnicki (1988) established that females, especially those with a feminine gender-role orientation, were more likely to exhibit negative reactivity for negative events. An individual's sense of Self-Efficacy is also a pervasive influence on how situations are perceived and what behaviour is attempted. Bandura (1986c) stated that SE was a powerful determinant of personality. Research has documented how an individual's sense of efficacy is internalized through socialization (Bandura & Adams, cited in Hackett & Betz, 1981). Situational factors are, therefore, also involved in the development of this personality characteristic.

Thus, FOS was predicted by personality dispositions rather than situational influences - notwithstanding the influence of situational factors on the development of NA and SE. This finding was in conflict with the conclusion posed in the review of the literature that FOS is an artifact of situational factors, specifically gender-role stereotypes. In fact, no relationship between ATW and FOS, or between SAV and FOS was found. The ATW and SAV constructs were included in the analysis to measure the relationship between

FOS and conformity to socially defined norms of behaviour.

However, the finding that FOS was predicted by personality constructs personality did not mean that FOS was an enduring personality disposition or motive as described by Horner (1968). The only conclusion which could be drawn was that FOS is directly linked to personality.

Exploring the Natural Grouping of Variables

It was anticipated that finding the "natural groupings" within the sample would reveal more about the nature of women who fear success in terms of the interrelationships between constructs. The case argued for theoretical relationships between the variables investigated and FOS was strong, although not all these relationships proved significant. A recurring pattern of interrelationships between constructs was, however, noted. Further exploration of the interrelationships between constructs through cluster analysis was undertaken in an effort to understand FOS better in terms of the meaning of these interrelationships.

Cluster Analysis of Cases

Janman, Jones, Payne and Rick (1988) noted that in situations where effects are found to be non-linear and to interact with each other, as in this case, the use of cluster analysis as a way of categorizing individuals is the least artificial and empirically most accurate means of deriving groups. The aim of cluster analysis is to allocate individuals to a set of mutually exclusive, exhaustive groups such that individuals within a group are similar to one another while individuals in different groups are dissimilar (Chatfield

& Collins, 1989). Thus cluster analysis was employed to sort the sample into empirically derived groups on the basis of their scores on all of the variables. This did not resolve the problem of interactions, but facilitated exploring the nature of the clusters so identified, that are in one sense at least, "naturally occurring groups" (Janman et al., p.19).

The first step in this hierarchical technique was to consider each case as a separate cluster. The process of generating clusters involved joining cases and/or clusters of cases in a stepwise fashion until all cases were combined into one cluster (Dixon, Brown, Engelman, Hill & Jennrich, 1988). The algorithm used in this analysis employed the distance between centroid clusters as the criterion for amalgamation. According to Chatfield and Collins (1989) centroid clustering is similar in "spirit" to single-link clustering, which is the clustering rule with the greatest mathematical appeal. Single-link clustering is the only hierarchical clustering method which satisfies all the conditions stipulated by Jardine and Sibson (cited in Chatfield & Collins).

The clusters generated were presented in the form of a tree diagram or dendrogram. Unfortunately, the size of the printout prohibited its inclusion in this document. It was not possible to adjust the graphics produced by the software used, and attempts at reducing the size of the diagram made it illegible. Consequently, the information gleaned from the dendrogram had to be described as "graphically" as possible.

Hartigan defined a tree diagram as a "family of clusters for which any two clusters are either disjoint or one includes the other" (cited in Chatfield & Collins, 1989, p.11). Chatfield and Collins expanded on this definition, describing a tree diagram as a

"structure where groups forming a partition are included into larger groups so that the final product is a complete hierarchical structure of a given set of individuals" (p.11).

Examination of the tree diagram suggested that the cluster analysis was successful in terms of Chatfield and Collin's criteria that a "successful cluster analysis must bring to light previously unnoticed groupings in a set of data or help to formalize the hierarchical structure" (1989, p.215).

The analysis generated three distinct clusters. The size of the clusters did not differ greatly, although not all groups were equally coherent or distinct.

The most coherent cluster contained 80 individuals. The majority of individuals incorporated into the cluster were related at amalgamation distances of less than 0.003. All individuals within this group fell within a distance of 0.005 of each other. This cluster was also the most distinct.

A more widely dispersed group of 81 individuals made up a second cluster. Most of the subjects included in this group were related at distances greater than 0.002. Although this cluster was clearly identifiable, its situation to a third cluster was considerably closer than to the first cluster.

The third cluster was the least internally coherent grouping. Most of the 79 subjects comprising this cluster were incorporated into the grouping at distances of 0.004 and greater. The dispersion of cases within this cluster indicated that the subjects within this group were less similar than those included in either cluster 1 or 2, but nevertheless distinct. Cluster 1 was the furthestmost removed from this group, and therefore the most dissimilar to cluster 3.

Describing the Characteristics of Clusters

In order to determine the characteristics of each of the clusters, the mean score for each variable was computed across clusters. This information is presented in Table 21. Furthermore, the significance of the differences in means between clusters was tested using independent pairwise t-tests.⁶ The results are displayed in Table 22. The significant pattern of differences in means across clusters confirmed that the clusters were meaningfully distinct. Understanding how these clusters were different, involved analysing why variable means differed across clusters in terms of the interrelationships between variables. Specifically, how FOS distinguished between clusters in terms of the pattern of interrelationships between variables.

FOS distinguished significantly between the second and the third clusters and between the first and the third clusters ($p<.001$). The mean score for this construct was lowest within the first cluster and highest in the third cluster. Considering that FOS was the variable of primary interest, the first and third clusters were labelled Low-FOS and High-FOS, respectively. The second group was labelled the Now-You-See-It-Now-You-Don't cluster for reasons which will become apparent as the discussion of the results progresses.

Low-FOS Cluster. The age variable was included in this study because according to Horner, FOS increased with age as gender-role stereotypes were internalized. Horner

⁶ The possibility of interdependence across means was discounted because only three clusters were generated. Therefore, the robustness of the statistics could not be relied upon.

Table 21: Means and Standard Deviations for Clusters

	Cluster 1 (N = 80)		Cluster 2 (N = 81)		Cluster 3 (N = 79)		Sample (N = 240)	
	\bar{X}	s	\bar{X}	s	\bar{X}	s	\bar{X}	s
AGE	3.65	1.58	3.63	2.08	3.66	2.22	3.66	2.02
FOS	5.68	2.80	5.91	3.75	9.67	4.79	7.09	4.26
ATW	9.70	5.93	21.99	6.61	23.73	13.03	18.54	11.01
AAV	19.69	2.65	17.74	5.11	15.43	5.27	17.70	4.49
SAV	12.65	2.43	11.28	3.01	10.13	3.43	11.35	3.13
NA	16.78	3.81	20.44	5.17	25.52	8.02	20.80	5.66
PA	40.38	4.40	38.56	5.27	35.71	6.12	38.28	7.01
SE	115.81	13.77	107.42	13.19	90.97	13.82	105.07	11.25

Table 22: t-Tests of the Significance of Differences in Means Across Clusters

	Cluster 1 vs 2 (df = 159) t	Cluster 2 vs 3 (df = 158) t	Cluster 1 vs 3 (df = 157) t
AGE	0.06	-0.08	-0.03
FOS	-0.44	-5.54***	-6.42***
ATW	-12.41***	-1.07	-8.76***
AAV	3.03**	2.82**	6.45***
SAV	3.18**	2.26*	5.35***
NA	-5.11***	-4.77***	-8.79***
PA	2.38*	3.16**	5.53***
SE	3.95***	11.35***	7.70***

* p<.05

** p<.01

*** p<.001

because awareness of gender-role identities and sensitivity to social influence is heightened at this stage of development. However, the mean age of women within this cluster approximated the sample mean, which implied that there was no relationship between FOS and age.

The lowest cluster mean for ATW was recorded in this Low-FOS cluster. The low mean score for ATW indicated that the women incorporated into this cluster were liberal in their attitude towards the role of women in society. Horner (1968) established the centrality of gender-role socialization to the development of FOS with her claim that the motive to avoid success was acquired early in life along with gender-role standards. This description of FOS implied the existence of a relationship between FOS and gender-role orientation. Tresemer and Sasson (cited in Weinreich-Haste, 1984), noted that female achievement anxiety appeared to derive from gender-role expectations. However, according to Major (1979), the direction of the relationship is unclear, because Horner stated that FOS should be more common among highly achievement motivated, masculine, nontraditionally gender-role oriented women (Horner, 1970, p. 65 cited in Major), and she also claimed that FOS was most likely to occur among achievement avoiding, feminine, traditionally oriented women (Horner, 1972, p. 67 cited in Major). The grouping of low FOS and liberal attitudes would seem to support a relationship between FOS and gender-role traditionalism.

The relationship established between AAV and FOS by Spearman's correlation coefficient was recaptured within this cluster (see Table 19). A high level of the desire

to achieve internalized standards of excellence (Veroff, cited in Strümpfer, 1975), was grouped with low FOS. This finding reinforced the grouping of low FOS with liberal attitudes towards the role of women, because liberal women would not be bound to suppress their achievement values. The link between FOS and AAV also re-established the association of FOS with personality. AAV can be categorized as an innate characteristic, where these values develop in children before the facility of social comparison enables a child to learn about "norms for socially approved, proper performance" (Strümpfer, 1975, p. 191).

How the SAV construct distinguished between clusters was unclear, because the grouping of high SAV with low FOS did not make sense in terms of the theory reviewed. The SAV construct was included in the study in anticipation that high SAV would be related to high FOS, because Social Achievement Values encompass the acceptance of norms for socially approved performance (Strümpfer, 1975). An explanation may be provided by Battistich, Thompson, Mann and Perlmutter's (1982) finding that the correlates of social achievement differed for males and females. Battistich et al. reported that socially achievement oriented females did not appear to need social approval, although they may still desire social recognition; SAV was found to be negatively related to social desirability responding; need for affiliation and also appeared to be unrelated to social anxiety. According to Battistich et al., their finding was consistent with Veroff's conceptualisation of gender differences in achievement motivation, because females who actively compete to gain social recognition run the risk of social censure. This would imply that the socially acceptable way for females to satisfy effectance needs would be through non-competitive or autonomous

achievement. The experiment conducted by Battistich et al. did not, however, support this theory.

The mean score for NA was low in the Low-FOS cluster. It was reported that the trait of negative emotionality (Barrick & Mount, 1991; Digman, 1990; Goldberg, 1990), predicted the occurrence of FOS (see Table 20). Thus, the link between FOS and personality re-emerged in the pattern of relationships between variables. Low SE or the perception of self as inefficacious was also found to predict FOS (see Table 20). High SE was grouped with low FOS in this cluster. SE has also been described as an important determinant of personality (Bandura, 1986c).

The negative correlation between PA and FOS measured by Spearman's coefficient was retrieved from within the Low-FOS cluster (see Table 19). The relationship between the dominant personality factor of extraversion or PA (Watson & Clark, cited in Strümpfer, et al., 1975; Watson, Clark & Tellegen, 1988), and FOS was further confirmation of the link between this construct and personality.

Now-You-See-It-Now-You-Don't Cluster. The difference in the mean score of FOS between the Low-FOS cluster and the Now-You-See-It-Now-You-Don't cluster was not significant. The mean age of the women incorporated into the second cluster was also not significantly different from that of the individuals grouped into the Low-FOS cluster.

However, the mean ATW score was significantly different ($p < .001$) between the Low-FOS and this second cluster. The relationship between liberal attitudes towards the role of women in society and low FOS suggested by the grouping of variables in the Low-FOS cluster, was not confirmed by the association of low FOS and conservative

attitudes in the Now-You-See-It-Now-You-Don't cluster. Of course, conservative women do not necessarily fear success. An explanation for this grouping became apparent after further analysis of the interrelationships between variables.

The mean score for AAV was lower in the Now-You-See-It-Now-You-Don't cluster, and significantly different from the score recorded in the Low-FOS cluster ($p < .01$). AAV was found to correlate with FOS (see Table 19), but the insignificant increase in FOS from the Low-FOS cluster hardly seemed to merit the decrease in AAV. Furthermore, the cluster mean approximated the sample mean. The mean score for SAV was also significantly different from the mean calculated for the Low-FOS cluster ($p < .01$), although changes in SAV could not be explained in terms of FOS. The mean SAV score was also almost equivalent to the sample mean for this construct.

It was possible that the correlation between AAV and PA, and between AAV and SE, influenced the generation of clusters. SAV was also found to be significantly related to PA and SE. Furthermore, AAV and SAV were found to be correlated despite Strümpfer's (1975) claim that these dimensions of achievement were independent. PA was, in turn, correlated to SE and FOS (see Tables 18 and 19). SE predicted the occurrence of FOS (see Table 20). Thus, what seemed to be emerging was an intricate pattern of relationships which operated on different levels. Analysing how these relationships operated would have meant expanding the focus of the present research beyond what was planned.

The mean for PA was lower in the Now-You-See-It-Now-You-Don't cluster than in the Low-FOS cluster. This could have been anticipated given the slightly higher FOS

mean, but mean PA approximated the sample mean in this case too. Nevertheless, the difference in PA scores between the Low-FOS cluster and the Now-You-See-It-Now-You-Don't cluster was significant ($p < .05$).

The predictive relationship between SE and FOS reported in the regression analysis was apparent in the Now-You-See-It-Now-You-Don't cluster. The decrease measured in SE was attended by an increase in FOS, albeit a nominal increase. The difference between the Low-FOS and this cluster was, however, highly significant ($p < .001$). NA was also found to predict FOS (see Table 20). Once again, this relationship was evident in as much as the increase in mean NA was associated with a slight increase in FOS. The difference in NA between the Low-FOS cluster and the Now-You-See-It-Now-You-Don't cluster was also significant at a high level ($p < .001$). Moreover, SE and NA were found to be significantly correlated by both Kendall and Spearman's coefficients of rank correlation (see Tables 18 and 19).

Thus, regardless of the significant differences between these two clusters in the mean scores of the variables which were correlated with, and which predicted FOS, the difference in mean FOS was insignificant. What was different about the way in which these variables were grouped was that FOS remained low, despite the conservative attitudes of women in the Now-You-See-It-Now-You-Don't cluster.

High-FOS Cluster. It was noted that the mean level of FOS in the third cluster was significantly different from the means recorded in the first two clusters ($p < .001$).

The average age of the women incorporated into the High-FOS cluster was equivalent to the sample mean. The insignificance of age as a distinguishing factor between

clusters was confirmed by the results of the t-tests of the difference in mean age across clusters. Van der Westhuizen (1986), who studied a group of South African adolescents, also reported finding no relationship between FOS and age. Stein and Bailey (1973, p. 363) commented that, "flight into femininity at adolescence with a concomitant reduction in achievement motivation has been widely assumed, but there is little documentation for it. The information which does exist indicates a high level of consistency of achievement strivings from middle childhood to adulthood among females, suggesting that changes in adolescence may be less striking than has been assumed".

Conservative attitudes towards the role of women were recorded within the High-FOS cluster. The difference in the mean level of FOS between the Low-FOS and the High-FOS cluster was highly significant ($p < .001$). The grouping of conservative attitudes towards women with high FOS, as opposed to the association between liberal attitudes and low FOS observed in the first cluster, would seem to confirm the proposition that conservatism was related to FOS. However, the significance of ATW as a distinguishing variable between the Low-FOS and the High-FOS clusters raises the issue of why ATW did not predict FOS, or was not even related to FOS. The answer must be, for the same reason that all conservative women do not fear success. This issue is pertinent with respect to the situational interpretation of FOS, which holds that FOS is a response to gender-inappropriate success.

The mean score for AAV decreased in the High-FOS cluster. Thus the negative relationship described between these constructs was confirmed within this cluster. The difference was not as significant between the Now-You-See-It-Now-You-Don't cluster

and the High-FOS cluster ($p < .01$), as between the High- and Low-FOS clusters. This finding provided further support for the association between high FOS, conservatism and low achievement values. The mean score for SAV also decreased to below the sample mean. The most significant difference in SAV means was between the High- and Low-FOS clusters ($p < .001$), but the same inversion of the relationship between SAV and FOS as reported previously was evident in the grouping of low SAV with high FOS. Furthermore, the finding that the difference in mean scores between the Low-FOS cluster and the Now-You-See-It-Now-You-Don't cluster was more significant ($p < .01$) than the difference between that cluster and the High-FOS cluster ($p < .05$) added to the confusion, because the difference in FOS was greater between the Now-You-See-It-Now-You-Don't cluster and the High-FOS cluster.

PA was lowest among the women in the High-FOS cluster. The most significant difference between means for PA was between the Low-FOS and the High-FOS cluster ($p < .001$). The difference between mean PA between the Now-You-See-It-Now-You-Don't cluster, which was low in FOS, and the High-FOS cluster was also highly significant ($p < .01$). Thus, the negative relationship between FOS and PA measured by Spearman's coefficient of correlation would appear to have influenced the clustering of women.

The Distinguishing Characteristics Between Clusters

The difference in the mean score of NA between the High-FOS and the Low-FOS cluster, and between the High-FOS cluster and the Now-You-See-It-Now-You-Don't group was significant at the highest level ($p < .001$). The finding that differences in mean

NA were significant across all the clusters identified NA as one of the most important distinguishing factors between clusters. SE, the other variable which predicted FOS, was also found to be an important distinguishing factor between the clusters. The t-tests for the differences in means were all highly significant ($p < .001$). ATW distinguished significantly between the Low- and the High-FOS clusters ($p < .001$), and between the Low-FOS cluster and the Now-You-See-It-Now-You-Don't grouping ($p < .001$). NA and SE predicted FOS, but until this point in the analysis, ATW had not shown any relationship to FOS. An explanation of how the clusters were distinct was found in the pattern of interrelationships between these variables.

The women included in the Low-FOS cluster were high on SE, they believed in their own efficaciousness, and were also low on NA, which meant that they did not suffer from emotional instability or neuroticism. Both these characteristics predicted low FOS. These personality characteristics could be considered to act as buffers against the development of FOS. ATW was not found to be directly related to FOS, but the liberal attitudes held by these women may be linked to the development of a strong sense of Self-Efficacy. Bandura reported that gender differences in Self-Efficacy are perpetuated by the traditional socialization of females (cited in Grubbs, Hardin, Weinrich et al., 1993; also cited in Betz & Hackett, 1981). Foss and Slaney (1986) also reported finding that less traditional women evidenced higher SE than their more conservative counterparts. ATW was not, however, found to be significantly correlated to SE by either Kendall or Spearman's coefficient, although the correlation was negative (see Tables 18 and 19). Nevertheless, it is possible that low NA, together with the type of socialization experiences which encourage SE, would foster liberal

attitudes, and counter the development of FOS.

PA and AAV were high in the Low-FOS cluster. Significant correlations between FOS and both PA and AAV were reported in the matrix of Spearman's rank correlation coefficients (see Table 19). It was noted that the desire to achieve internalized standards of excellence was related to low FOS. Whether this desire inhibits the development of FOS, or whether low FOS allows for the expression of this desire cannot be deduced from the results of the correlation analysis. Although, the fact that AAV develops before children learn to adhere to norms for socially appropriate behaviour (Strümpfer, 1975) would suggest that FOS is inhibited by high AAV. Thus, the women incorporated into this cluster could be described as achievement oriented. PA has been identified as a dimension of personality (Diener; Diener & Emmons, cited in Nelson, 1990; Watson, 1988), which implied that positive emotionality or high PA in some way discourages the development of FOS.

"Now-You-See-It-Now-You-Don't" was the term chosen to describe the second cluster, because the interrelationship of variables in this cluster revealed why FOS has proved to be such an elusive construct.⁷ SE was lower, and the level of negative emotionality higher in this cluster. Cognisance was taken of the fact that neither the mean score for SE nor NA differed much from the sample means calculated for each of these variables. The most obvious difference between the Low-FOS cluster and the Now-You-See-It-Now-You-Don't cluster was the conservative attitude of women in the latter group. As observed in the preceding discussion, conservative women do not necessarily fear

⁷ This term was originally used by Alper (1974)

success. However, conservative women who are neurotic and who perceive themselves as inefficacious, like the members of the High-FOS cluster, may be more likely to develop FOS. The most obvious reason for the low level of FOS in the second cluster was the moderating effect of average SE and NA. It would seem that these variables govern the relationship between ATW and FOS. The proposed relationship between SE and ATW was reinforced by the decrease in SE concomitant with the conservative attitudes of cluster members. However, the relatively small difference in SE effected by the dramatic swing towards conservatism indicated that this relationship was more complex. The relationship described between FOS and PA was also evident in the Now-You-See-It-Now-You-Don't cluster. The significant decrease in mean PA from the Low-FOS cluster marked the increase in FOS. Similarly, the mean score for AAV decreased. However, these means approximated the sample mean for PA and AAV.

Thus, although women characteristic of the Now-You-See-It-Now-You-Don't cluster were conservative, they did not perceive themselves as inefficacious, and neither could they be described as neurotic. Hence, the low level of FOS. The fact that the individuals included in this cluster did not evidence low PA, although they were not particularly positive across situations, energetic or venturesome (Watson, cited in Strümpfer, et al., 1995), may have contributed to inhibiting the development of FOS. Nor were these women particularly achievement oriented. What emerged in this cluster was a profile of the "average" woman, who does not fear success.

In contrast, the women grouped in the High-FOS cluster were characterized by neuroticism and feelings of inefficacy. The attitudes espoused by these women were

only a little more conservative than those recorded in the second cluster. However, it would seem that emotional instability and the perception of self as inefficacious may predispose women to develop FOS. Predictably, the mean score for FOS was highest within this group. In this cluster, the low level of SE was reflective of the high ATW score. Achievement values were low among these women who feared success. PA was also lowest within the High-FOS cluster.

In conclusion, analysing the interrelationships of variables across the clusters revealed why the measurement of FOS has proved so problematic. The elusiveness of this construct may be attributed to the complex interrelationship of factors which determine the development of FOS. While the mean profiles of the High- and Low-FOS clusters were mirror images of each other, the complex interrelationship observed between variables in the second cluster confused this pattern. The issue was that although the first two clusters both incorporated women who did not fear success, these women were very different in each case. The Now-You-See-It-Now-You-Don't cluster described the average woman, whereas the High-FOS and Low-FOS groups incorporated individuals from opposite extremes. The fact that women do not fear success for different reasons, may be a contributing factor to the confusion surrounding the measurement of FOS. Hence, now you see FOS, now you don't. The meaning of these findings in terms of what was revealed about the nature of FOS, is detailed in the concluding chapter.

CHAPTER 6

CONCLUSIONS

"The more original a discovery, the more obvious it seems afterwards"

Arthur Koester

The confusion about *Fear of Success* is rooted in the debate about whether this construct is a motive, as claimed by Horner, or a situational variable. The inconsistencies in the measurement of *Fear of Success*, and the fact that recent research has reported lower levels of *Fear of Success*, has cultivated the widely held belief that *Fear of Success* is a situational phenomenon influenced by environmental cues such as the stereotypes which dictate gender-appropriate behaviour.

The re-exploration of *Fear of Success* in the current study, however, led to the conclusion that *Fear of Success* was closely related to personality variables. *Fear of Success* was found to be significantly correlated to *Negative Affect*, *Autonomous Achievement Values*, *Positive Affect* and *Self-Efficacy*. Specifically, *Negative Affect* and *Self-Efficacy* predicted the occurrence of *Fear of Success*. Although, it was not possible to deduce from these results whether *Fear of Success* is a motive or not, the results indicated that the manifestation of this phenomenon was embedded in personality. Potentially the most interesting discovery was how *Attitudes Towards*

Women may influence the development of *Fear of Success*, albeit indirectly.

It was anticipated that *Fear of Success* would be directly related to *Attitudes Towards Women* and *Social Achievement Values*, not only in light of the evidence for the situational interpretation of *Fear of Success*, but also the fact that Horner (1969) described the development of *Fear of Success* as accompanied by the internalization of gender-role stereotypes. The *Attitudes Towards Women* construct was, in fact, found to influence *Fear of Success*, but the link between these variables was through *Self-Efficacy*. The development of *Self-Efficacy* is influenced by social information which becomes internalized as a stable characteristic of personality (Bandura, 1986c). Bandura (cited in Grubbs et al., 1993) noted that gender differences in *Self-Efficacy* are perpetuated by the traditional socialization of females, and it was at this point that *Attitudes Towards Women* were proposed to influence the development of *Fear of Success*. It was postulated that high *Negative Affect*, together with low *Self-Efficacy* and conservative *Attitudes Towards Women* predisposed women to develop *Fear of Success*. The interaction of these variables was evident in the clusters generated by the cluster analysis.

In the first cluster, low *Negative Affect* together with high *Self-Efficacy* predicted a low level of *Fear of Success*. The *Attitudes Towards Women* in this *Low-Fear of Success* cluster were liberal, which was concomitant with the high mean for *Self-Efficacy*. In the *Now-You-See-It-Now-You-Don't* group, *Fear of Success* was also low. However, *Attitudes Towards Women* were conservative and the mean for *Self-Efficacy* significantly lower - although almost equivalent to the sample mean. The reason proposed for why these women had not internalized their conservative socialization

experiences as feelings of inefficacy was that these women did not suffer from emotional instability or high *Negative Affect*. *Negative Affect* is an innate characteristic which has been found to have a strong genetic component (Tellegen, Lykken, Wilcox, Segal & Rich, cited in Strümpfer et al., 1975). Thus, the explanation may be that, women who do not suffer from the reactivity to negative events induced by *Negative Affect* would not internalize conservative attitudes. In contrast, neuroticism and feelings of inefficacy were evident among women in the *High-Fear of Success* cluster. As anticipated, conservative *Attitudes Towards Women* coincided with low *Self-Efficacy*. Thus, the manifestation of high *Fear of Success* could possibly be explained by the high level of psychological distress among these women, which would make them more vulnerable to social pressure to avoid success.

The pattern of relationships between variables which emerged across clusters established the centrality of *Negative Affect* and *Self-Efficacy* to the manifestation of *Fear of Success*. *Negative Affect* has been identified as a determinant of vulnerability to psychological distress or low levels of psychological well-being. Research has established that vulnerability to psychological distress is to a large extent, determined by an individual's tendency to experience aversive emotions generally (Dua, 1993; McLennan & Betts, 1993). *Self-Efficacy* has also been reviewed by Antonovsky as a "salutogenic" strength or an origin of health (Strümpfer, 1975). The salutogenic construct was broadened by Strümpfer to include the origins of psychological strength, or "fortigenesis". *Self-Efficacy* was listed by Strümpfer as a related construct in which the metaphor of strength was inherent. Dua (1993) reported that feelings of competency and confidence in one's capabilities also influence psychological well-

being. Thus, psychological distress, or the state of anxiety and uncertainty described by high *Negative Affect* and low *Self-Efficacy*, may make women vulnerable to social pressure to avoid success. On the other hand, the women who evidenced low *Fear of Success* seemed to enjoy a certain level of psychological well-being. The levels of *Self-Efficacy* and *Negative Affect* in the *Now-You-See-It-Now-You-Don't* cluster approximated the sample means, which indicated that, although subjects did not possess a high level of well-being, they did not suffer psychological distress. The complacency of these women was confirmed by the average level of *Positive Affect* and the finding that they were not achievement oriented. The level of psychological well-being was highest in the *Low-Fear of Success* cluster. The high level of achievement orientation expressed by women incorporated into the *Low-Fear of Success* cluster, together with their liberal attitudes towards the role of women in society, was confirmation that these women were unconcerned with social pressure to avoid success.

Implications for Horner's Definition of Fear of Success

Some of the most important points in Horner's (1968) definition of *Fear of Success* were confirmed by the findings of the current study.⁸ The relationship of *Fear of Success* to *Negative Affect*, *Self-Efficacy*, *Autonomous Achievement Values* and *Positive Affect* firmly entrenched this construct within personality. Although it could not be stated that *Fear of Success* is a motive, the results imply this to be the case. Moreover, *Fear of Success* would appear to develop in association with gender-role stereotypes, or

⁸ The operational details of Horner's definition of *Fear of Success* were not investigated in this study.

Attitudes Towards Women, as claimed by Horner. Thus, *Fear of Success* is the "fear that success ... would lead to negative consequences" as described by Horner (1969, p. 38), but this fear would seem to be rooted in psychological well-being, which conflicts with Horner's unidimensional theory that females have a specific motive to avoid success. Horner (1969) did, however, state that the "first clue" as to where to begin her *Fear of Success* research was the consistent finding that women suffered higher test anxiety than men.

Horner's (1968) finding of the prevalence of *Fear of Success* among women can be explained in terms of the information gleaned about this construct in the present study. Horner's research was conducted at a time when conservative attitudes towards the role of women were pervasive. Furthermore, the challenge posed by the rise of the liberation movement had thrown the female role into conflict. Under these circumstances, women with any tendency towards emotional instability, and who had been socialized to believe themselves inefficacious would have been vulnerable to the pressure to conform to convention. Hence, the high level of *Fear of Success* in Horner's study.

The incidence of *Fear of Success* was not high in the current study. In fact, none of the South African studies cited, reported high levels of *Fear of Success* among females (Erwee, 1981; Erwee & Boshoff, 1982; Kellerman, 1983; Tenty, 1984; Thompson, 1990; van der Westhuizen, 1986), but Thompson noted that this did not negate the effect of the variable. The perception of *Fear of Success* as a measure of gender-role stereotypes has resulted in fluctuations in the level of *Fear of Success* being cited as

evidence for the situational nature of the *Fear of Success* construct. According to the findings of the current study, however, the liberalization of attitudes towards the role of women would not directly affect *Fear of Success*. *Fear of Success* is not a measure of adherence to gender-role stereotypes per se, but a product of the interaction between psychological well-being and socialization practices. This may account for some of the difficulty which has arisen in measuring *Fear of Success*.

The explanation of *Fear of Success* in terms of psychological well-being could resolve much of the confusion surrounding the issue. The *Negative Affect* and *Self-Efficacy* constructs have both been recognized as very broad and yet cohesive dimensions which could potentially integrate and consolidate research (Bandura, 1986b; Watson & Clark, 1991). Bandura made the observation that, "progress in understanding human functioning is best achieved by theories that have a broad range of applicability because to appeal to separate conceptual schemas for each aspect of functionality does not produce much of an advance in the field" (p. 359).

The question of whether *Fear of Success* is a motive or a situational variable remains unanswered. The findings presented established that *Fear of Success* was embedded in personality constructs, which would indicate that *Fear of Success* is a motive or stable characteristic of personality. The resolution of this issue is a problem for future research. After all, Tukey (1977, p. viii) stated that, "to learn about data analysis it is right that each of us try many things that do not work ... that we tackle more problems than we can make expert analysis of".

Recommendations for Future Research

A few recommendations can be made about how the issue of whether *Fear of Success* is a motive or not could be resolved.

It is suggested that any undertaking to resolve this issue should consider measuring those variables found to be significantly related to *Fear of Success*. Specifically, *Fear of Success*, *Negative Affect* and *Self-Efficacy* should be measured. The point of this exercise would be to test whether the variables which predicted *Fear of Success* could be attributed with causality for the occurrence of this construct. Thus, path analysis would be the analytical tool suggested. The ascription of causality to personality variables such as *Negative Affect* and *Self-Efficacy* would identify *Fear of Success* as a motive.

A further technical consideration is that *Self-Efficacy* should be measured using a domain-specific scale. Although the current study found that *Self-Efficacy* predicted 13 per cent of the variance in *Fear of Success*, it is anticipated that the use of a domain-specific scale, such as a scale for career *Self-Efficacy*, would improve the predictive utility of this construct. The results of a study by Lennings (1994) called into question the usefulness of a generalized *Self-Efficacy* measure such as the scale employed in the present study. Lennings noted that Bandura described beliefs about outcomes as varying across behavioural domains. Therefore, *Self-Efficacy* should be regarded as having a high domain-specific component, rather than high generalizability.

The sample for the proposed research should include both males and females from the working population. The inclusion of members of both gender groups is necessary in order to ascertain whether *Fear of Success* is a female-specific phenomenon as claimed by Horner. Moreover, the stipulation that the sample be drawn from the working population would ensure the generalizability of the findings to the relevant group. Within the South African context, cross-cultural sampling would also be called for if the findings were to be relevant to the wider population.

Until the *Fear of Success* issue is resolved, progress in research on female achievement motivation will be obstructed by the question of who to blame for female underachievement.

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Department of Psychology

University of Cape Town · Rondebosch 7700 · South Africa
Telephone: (021) 650-9111
Fax No. (021) 650-3657

APPENDIX

Thank you for participating in this research project. The data gathered for the project and the subsequent results obtained contribute towards the fulfilment of the honours curriculum in Industrial Psychology at the University of Cape Town. But more importantly, the aim of this survey is to investigate a number of variables which may influence women's choice of occupation. I believe that the discovery of some sort of relationship among these variables may be helpful in explaining how and why women make certain career choices.

Please note that nowhere on the form are you required to disclose your name. The utmost confidentiality is assured. Once this form has been completed, its contents will be accessible only to myself and the particular Industrial Psychology staff members under whose guidance the project is being monitored. So please try and answer all the questions as honestly and as clearly as possible.

I hope that the areas covered in the research will be relevant to your experience and that the results of this research will contribute to our understanding of women's career choices.

Many thanks for your interest and time.

Ronelle de Villiers
Industrial Psychology Honours Student
UCT

SECTION A

BIOGRAPHICAL DETAILS

Please indicate your AGE by ticking the appropriate box.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20 or younger	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65

Marital status: _____

Do you have children? _____ If so, state the number: _____ Ages: _____

State your occupation: _____

Do you possess any academic qualifications? For example, a matric, technical training or a degree? Please state: _____

List any previous jobs which you may have held: _____

SECTION B

INSTRUCTIONS:

Please indicate whether you consider the following statements true or false. If you consider the statement to be true, place a T in the block provided, or alternatively an F if you consider the statement false.

1.	I am sometimes afraid to do things as well as I know that I could.	<input type="checkbox"/>
2.	I am prone to worry that I may antagonize others if my work is of superior quality.	<input type="checkbox"/>
3.	I never worry about the possibility of being disliked by others for doing well at something.	<input type="checkbox"/>
4.	I sometimes do less than my very best so that no one will be threatened.	<input type="checkbox"/>
5.	I often worry about the possibility that others will think I am a "show off".	<input type="checkbox"/>
6.	I never worry about the possibility that others may think I work too hard.	<input type="checkbox"/>
7.	I would find it nerve-wracking to be regarded as one of the best in my field.	<input type="checkbox"/>
8.	I seem to be more anxious after succeeding at something than after failing at something.	<input type="checkbox"/>
9.	I would worry that others might think I was peculiar or strange if I were too devoted to my work.	<input type="checkbox"/>
10.	I have occasionally deliberately done average or mediocre work in order to make sure that someone else would do better than I.	<input type="checkbox"/>

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| 11. | I sometimes worry that others will expect too much of me. | <input type="checkbox"/> |
| 12. | I usually set goals for myself which are lower than what I am capable of reaching. | <input type="checkbox"/> |
| 13. | I seem to be drawn to activities which are not very challenging. | <input type="checkbox"/> |
| 14. | I do not seem to enjoy doing work of a superior quality as much as I feel that I should. | <input type="checkbox"/> |
| 15. | I do not like competing with others if there is a possibility that hard feelings may develop toward me. | <input type="checkbox"/> |
| 16. | I worry about the possibility of being criticized by my friends or associates for being too involved with my work. | <input type="checkbox"/> |
| 17. | I sometimes worry that I may become too well-informed for my own good. | <input type="checkbox"/> |
| 18. | I never worry about the possibility that friendships may have to be sacrificed in order to accomplish certain tasks or kinds of work. | <input type="checkbox"/> |
| 19. | If I were outstanding at something, I would worry about the possibility of others making fun of me behind my back. | <input type="checkbox"/> |
| 20. | I do not worry about the personal feelings of others when it comes to getting something important done. | <input type="checkbox"/> |
| 21. | I have a tendency to worry that someone may become jealous if I do well at something. | <input type="checkbox"/> |
| 22. | I would never worry about the possibility that academic or occupational success might interfere in social relationships. | <input type="checkbox"/> |
| 23. | I would never worry about the possibility that others might feel uncomfortable or ill at ease around me if I were too competent at something. | <input type="checkbox"/> |
| 24. | I have a tendency to fear that others might like me only for what I could do for them due to my competency in a certain field. | <input type="checkbox"/> |
| 25. | I am prone to worry that undue pressures would be placed on me if I were to develop considerable competency in a certain field. | <input type="checkbox"/> |
| 26. | I worry that I may become so knowledgeable that others will not like me. | <input type="checkbox"/> |
| 27. | I would worry that others might try to take advantage of me if I were extremely competent at something. | <input type="checkbox"/> |
| 28. | If I were to do well at something, I would worry that someone might try to undermine my success. | <input type="checkbox"/> |
| 29. | I would worry that others might be afraid of me if they felt that I understood people too well. | <input type="checkbox"/> |

SECTION C

INSTRUCTIONS

The statements listed below describe attitudes that different people have towards the role of women in society. There are no right or wrong answers, only opinions. You are asked to express your feelings about each statement by indicating whether you (A) strongly agree, (B) agree mildly, (C) disagree mildly or (D) disagree strongly. Please indicate your opinion by filling the appropriate letter into the box provided.

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|-----|--|--------------------------|
| 1. | Swearing and obscenity are more repulsive in the speech of a woman than of a man. | <input type="checkbox"/> |
| 2. | Women should take increasing responsibility for leadership in solving the intellectual and social problems of the day. | <input type="checkbox"/> |
| 3. | Both husband and wife should be allowed the same grounds for divorce. | <input type="checkbox"/> |
| 4. | Telling dirty jokes should be mostly a masculine prerogative. | <input type="checkbox"/> |
| 5. | Intoxication is more disgraceful among women than among men. | <input type="checkbox"/> |
| 6. | Under modern economic conditions with women being active outside the home, men should share in household tasks such as washing dishes and doing the laundry. | <input type="checkbox"/> |
| 7. | It is insulting to women to have the "obey" clause remain in the marriage service. | <input type="checkbox"/> |
| 8. | There should be a strict merit system in job appointment and promotion without regard to gender. | <input type="checkbox"/> |
| 9. | A woman should be as free as a man to propose marriage. | <input type="checkbox"/> |
| 10. | Women should not worry as much about their rights as about becoming good wives and mothers. | <input type="checkbox"/> |
| 11. | Women earning as much as their dates should share the expense when they go out together. | <input type="checkbox"/> |
| 12. | Women should assume their rightful place in business and all the professions along with men. | <input type="checkbox"/> |
| 13. | A woman should not expect to go exactly the same places or to have quite the same freedom of action as a man. | <input type="checkbox"/> |
| 14. | Sons in a family should be given more encouragement to go to university than their daughters. | <input type="checkbox"/> |
| 15. | It is ridiculous for a woman to drive a train and for a man to darn socks. | <input type="checkbox"/> |

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| 16. | In general, the father should have greater authority than the mother in the bringing up of children. | <input type="checkbox"/> |
| 17. | Women should be encouraged not to become sexually intimate with anyone before marriage, even their fiancés. | <input type="checkbox"/> |
| 18. | The husband should not be favoured by law over the wife in the disposal of family property or income. | <input type="checkbox"/> |
| 19. | Women should be concerned with their duties of childbearing and looking after the house, rather than with desires for professional and business careers. | <input type="checkbox"/> |
| 20. | The leadership of a community should be largely in the hands of men. | <input type="checkbox"/> |
| 21. | Economic and social freedom is worth far more to women than acceptance of the ideal of femininity which has been set up by men. | <input type="checkbox"/> |
| 22. | On the average, women should be regarded as less capable of contributing to economic production than are men. | <input type="checkbox"/> |
| 23. | There are many jobs in which men should be given preference over women in being hired or promoted. | <input type="checkbox"/> |
| 24. | Women should be given equal opportunity with men for apprenticeship in the various trades. | <input type="checkbox"/> |
| 25. | The modern women is entitled to the same freedom from regulation and control that is given to the modern man. | <input type="checkbox"/> |

SECTION D

INSTRUCTIONS

Listed below are statements concerning some personal attitudes and values. Read each item and decide whether the statement is true or false as it pertains to you personally. If a statement is true, write a T next to the item in the block provided, or an F if it is false.

- | | | |
|----|--|--------------------------|
| 1. | I put in hours of hard work in order to do a job well. | <input type="checkbox"/> |
| 2. | I wish I could live overseas for some time. | <input type="checkbox"/> |
| 3. | I am inclined to read of the successes of others rather than do the work of making myself a success. | <input type="checkbox"/> |
| 4. | I should like to be a recognized authority in some job, profession or field of specialization. | <input type="checkbox"/> |
| 5. | I usually work to do more than just get through an examination. | <input type="checkbox"/> |
| 6. | I hate participating in a competition for a prize. | <input type="checkbox"/> |
| 7. | Often I am just not in the mood for work, and then I don't do it. | <input type="checkbox"/> |

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| 8. | I like to accomplish tasks that others recognize as requiring skill and effort. | <input type="checkbox"/> |
| 9. | I like to plan a home study schedule and then follow it. | <input type="checkbox"/> |
| 10. | I can laugh uproariously at a good joke or a humorous situation. | <input type="checkbox"/> |
| 11. | I must admit, I am inclined to do things which I can do easily. | <input type="checkbox"/> |
| 12. | I seem to be about as capable and smart as most others around me. | <input type="checkbox"/> |
| 13. | I regulate my life by the rules: work comes before play. | <input type="checkbox"/> |
| 14. | I never do things just to prove to others that I can do it. | <input type="checkbox"/> |
| 15. | I would describe myself as being lazy. | <input type="checkbox"/> |
| 16. | I like to be able to do things better than other people can. | <input type="checkbox"/> |
| 17. | I work for success rather than daydream about it. | <input type="checkbox"/> |
| 18. | I wish I could feel what it is like to be hypnotised. | <input type="checkbox"/> |
| 19. | Days will often go by without my having done a thing. | <input type="checkbox"/> |
| 20. | Sometimes I feel tempted to do something simply because I know others have failed it. | <input type="checkbox"/> |
| 21. | I work hard at a job. | <input type="checkbox"/> |
| 22. | It makes me uncomfortable to put on a stunt at a party even when others are doing the same sort of thing. | <input type="checkbox"/> |
| 23. | I virtually never did any more school work than that which teachers assigned. | <input type="checkbox"/> |
| 24. | I like to be able to say that I have done a difficult job well. | <input type="checkbox"/> |
| 25. | I do things "today" rather than putting them off to do "tomorrow". | <input type="checkbox"/> |
| 26. | I quarrel with people who try to exercise their authority over me. | <input type="checkbox"/> |
| 27. | I should like to work where it is fairly easy to keep up without working too hard. | <input type="checkbox"/> |
| 28. | I enjoy matching my wits against my friends and try hard to outwit them. | <input type="checkbox"/> |
| 29. | I have a reputation for perseverance and hard work. | <input type="checkbox"/> |
| 30. | I don't care whether others recognize my abilities or not. | <input type="checkbox"/> |

31. Like many other people, I am not too conscientious. ☐
32. At school I often tried to come out on top in games and sports. ☐
33. I always try to do at least a little better than what is expected of me. ☐
34. When I perform in a way which I feel deserves a reward, I am not content to wait - I want the reward now. ☐
35. Compared to some people I know, I feel I often waste time and spend it uselessly. ☐
36. I frequently think about what I could do that would make me famous. ☐
37. I direct my efforts to getting ahead in my field. ☐
38. So far it has never really occurred to me to model my life on that of a successful person. ☐
39. I considered most homework a bore. ☐
40. I used to like it very much when my work was read to the class at school. ☐
41. I try to do my very best at work that I do. ☐
42. I don't think I'd like to live in the same place more than about 3 years. ☐
43. I am inclined to take life as it comes without much planning. ☐
44. I often compare how well I can do something with how well others can do it. ☐
45. I never like to leave a task before I know whether I've been successful in handling it. ☐
46. To accomplish something of great significance is not one of my ideals. ☐
47. I do, or did, little preparation for examinations. ☐
48. I have a very strong desire to be a success in the world. ☐

SECTION E

INSTRUCTIONS

This scale consists of words that describe different feelings and emotions. Indicate to what extent you “generally” experience the feelings named, that is, how you feel on average. Use the following scale to mark the appropriate number in the spaces provided.

1/ very slightly or not at all	2 a little	3 moderately	4 quite a bit	5 extremely
_____	interested	_____	irritable	
_____	distressed	_____	alert	
_____	excited	_____	ashamed	
_____	upset	_____	inspired	
_____	strong	_____	nervous	
_____	guilty	_____	determined	
_____	scared	_____	attentive	
_____	hostile	_____	jittery	
_____	enthusiastic	_____	active	
_____	proud	_____	afraid	

SECTION F

INSTRUCTIONS

The following statements concern attitudes and feelings you might have about yourself and a variety of situations. You are asked to indicate how strongly you agree or disagree with each of these statements by choosing a number which corresponds to one of the following levels of agreement. Place the appropriate number in the block provided.

1 strongly agree	2 agree	3 slightly agree	4 neither agree nor disagree	5 slightly disagree	6 disagree	7 strongly disagree
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1.	I find it extremely unpleasant to be afraid.	<input type="text"/>
2.	I sometimes avoid difficult tasks.	<input type="text"/>
3.	I am a very determined person.	<input type="text"/>
4.	Once I set my mind to a task almost nothing can stop me.	<input type="text"/>
5.	I have a lot of self-confidence.	<input type="text"/>
6.	I am at my best when I am really challenged.	<input type="text"/>
7.	I believe that it is shameful to give up something when I start.	<input type="text"/>
8.	I have more than the average amount of self-determination.	<input type="text"/>
9.	Sometimes things just don't seem worth the effort.	<input type="text"/>

- | | | |
|-----|---|--------------------------|
| 10. | I would rather not try something that I'm not good at. | <input type="checkbox"/> |
| 11. | I have more fears than most people. | <input type="checkbox"/> |
| 12. | I find it difficult to take risks. | <input type="checkbox"/> |
| 13. | The world has a lot of problems but none we won't eventually be able to solve. | <input type="checkbox"/> |
| 14. | I can succeed in almost any endeavour to which I set my mind. | <input type="checkbox"/> |
| 15. | Nothing is impossible if I really put my mind to it. | <input type="checkbox"/> |
| 16. | I feel I am better off relying on myself for a solution when things are really looking bad. | <input type="checkbox"/> |
| 17. | When put to the test I would remain true to my ideals. | <input type="checkbox"/> |
| 18. | If a person believes in themselves, they can make it in this world. | <input type="checkbox"/> |
| 19. | I feel that chances are very good that I can achieve my goals in life. | <input type="checkbox"/> |
| 20. | In general I agree that "if at first I don't succeed, I'll try again". | <input type="checkbox"/> |
| 21. | When I have difficulty getting what I want, I just try harder. | <input type="checkbox"/> |
| 22. | I excel at only a few things. | <input type="checkbox"/> |
| 23. | I have often burned the midnight oil to finish a task before a deadline. | <input type="checkbox"/> |
| 24. | I have more willpower than most people. | <input type="checkbox"/> |
| 25. | I become frustrated when I experience physical discomfort. | <input type="checkbox"/> |
| 26. | Nothing is worth subjecting myself to pain for if I can avoid it. | <input type="checkbox"/> |
| 27. | I would endure physical discomfort to complete a task because I just don't like to give up. | <input type="checkbox"/> |

PLEASE ENSURE THAT YOU HAVE ANSWERED ALL THE QUESTIONS.

THANK YOU FOR YOUR CO-OPERATION